ADOLESCENT HEALTH: TIME FOR A CHANGE

Volume 6: Contractor Documents

1. "Update: Adolescent Health Insurance Status" by Richard Kronick.

2. "Medicaid Coverage of Adolescents" by Margaret McManus, Harriette Fox, Paul Newacheck, Lori Wick, Rebecca Kelly.

These contractor documents were prepared for the OTA assessment entitled ***Adolescent Health: Time For A Change***. They are being made available because they contain much useful information beyond that used in the OTA report. However, they are not endorsed by OTA, nor have they been reviewed by the Technology Assessment Board. References to them should cite the contractor, not OTA, as the author.

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DRAFT
Update: Adolescent Health Insurance Status

Background Paper for OTA's Adolescent Health Project

Prepared under contract to the
Carnegie Council on Adolescent Development

by Richard Kronick

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Summary

This paper updates the July, 1989 OTA background paper, "Adolescent Health Insurance Status: Analysis of Trends in Coverage and Preliminary Analysis of the Effects of an Employer Mandate and Medicaid Expansion".

This update:

- Analyzes complete data from the March, 1988 Current Population Survey. The preliminary analysis was produced without information from new 'cover sheet' questions, and therefore used adjusted data for 10-14 year olds to reflect the expected answers to the cover sheet questions. Answers to the cover sheet questions are included in the analysis reported here. In additon, the Census Bureau created a new imputation procedure for missing responses in the March, 1988 data, and results from the new imputation procedure are included in this report.

- Analyzes data from the March, 1989 CPS. This analysis updates results from the March, 1988 CPS.

- Includes an analysis of information on the firm size of the parent's employer; firm size data was previously available only for a subset of the March, 1983 CPS sample.

The major findings of this update are:

- The best estimate from the March, 1988 CPS data is that there were 4.4 million uninsured adolescents in 1987, or 14.3% of the 10-18 year old population. This estimate of 4.4 million is close to the estimate of 4.6 million uninsured adolescents in the preliminary report. The small difference between the preliminary and final estimate is partially a result of the updated imputation process used by the Bureau of the Census -- a process which results in more coverage estimated for 15-18 year olds -- and partially a result of differences between the adjustment process for 10-14 year olds used in the preliminary report and results from the final data.

- The estimated number of uninsured adolescents increased from 4.4 million in the March, 1988 data to 4.6 million in the March, 1989 data, or from 14.3% of adolescents to 15.0% of adolescents. This difference is statistically signficant at the 95% level, and parallels an increase in the number of under-65 uninsured from 31.2 million (14.7% of the under-65 population in 1987 (March, 1988 data) to 33.0 million (15.4%) in 1988 (March, 1989 data). The 1987 to 1988 increase is consistent with a generally increasing trend in the number of uninsured in the 1979-1986 time period.

Among uninsured adolescents whose parents were full time workers in 1988, 18% were the children of parents who were self-employed, and an additional 33% were the children of a parent who worked for a firm with fewer than 25 workers. Although a variety of differences in question wording make the comparison imprecise, it appears that the decrease in private coverage among adolescents from 1982 to 1988 is concentrated among those adolescents whose parents work for small firms.

The estimated effects of employer mandates and Medicaid expansions on the number of uninsured adolescents based on final March, 1989 data are very close to the estimates based on preliminary March, 1988 data. For example, the preliminary estimate was that a mandate on employers to provide insurance to full-time workers (30 hours or more per week) and their dependents would cover 55% of currently uninsured adolescents; the estimate based on March, 1989 data is also 55%. The preliminary estimate was that a mandate on 18 hour per week employees and an expansion of Medicaid to include all those under 200% of poverty would cover 93% of the currently uninsured; the corresponding estimate from the March, 1989 data is 92%.

The March, 1988 and March, 1989 data confirm the finding in the preliminary report that most uninsured adolescents live with uninsured parents or live without any parent. Only 3.5% of adolescents who live with insured parents are themselves uninsured. Uninsured adolescents who live with insured parents comprise only 20% of all uninsured adolescents.

This paper is organized as follows. Each of the five major findings of this update are briefly discussed below. Following the body of the text, the first appendix discusses the question wording changes in the March, 1988 CPS and the effects of those changes on estimates of the number of uninsured. The second appendix outlines small differences in analytic methods between the preliminary OTA report and this final report. The third appendix provides details on the adjustments in the March, 1983 data that were made to make them comparable to the 1988 and 1989 data in the analysis of the changing relationship between firm size and insurance status. The fourth appendix provides, for the final 1988 and March, 1989 data, updates on each of the major tables in the preliminary report. These updated tables differ little from the

preliminary tables and, without exception, support the statements made in the preliminary report.

1. 14.3% of Adolescnets Were Uninsured in 1987

As seen in Table 1, 14.3% of 10-18 year olds -- 4.4 million individuals -- are estimated to be uninsured based on the final March, 1988 data. The percentage of adolescents uninsured is similar to the percentage for the under-65 population as a whole: for the non-elderly population 14.7%, or 31.2 million people, are estimated to be uninsured.[1] The similar percentage uninsured among adolescents and adults is in contrast to information from CPS surveys prior to March, 1988, in which adolescents and children were more likely to be uninsured than adults.

The 4.4 million estimate for the number of uninsured adolescents is similar to the 4.6 million estimate in the preliminary report. Revised processing procedures for imputing missing data for adults added insurance coverage for 82,000 15-18 year olds in the final file compared to the preliminary file. In addition, a net of approximately 120,000 10-14 year olds are estimated to have insurance on the final file above the number that were estimated from the adjustment process used for the preliminary report.[2]

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1 As discussed at length in Appendix A, a variety of decisions must be made about assigning health insurance to adolescents (and children and adults) with apparently inconsistent responses to health insurance questions. The decisions made in constructing the 31.2 million estimate are detailed there. Although the estimate is similar to the 31.1 million estimate previously published by Moyer (1989), a number of the decisions are different from those apparently used by Moyer.

2 Details on the differences between final and preliminary files are provided in Appendix A.

TABLE 1

Health Insurance Status of the Under-65 Population, by Age Group, 1987

Age Group	Total Population	No Health Insurance [a] N	%	Insured: Private and Public [b,c] Private Only	Medicaid Only	Other
0-9	36,190,000	4,900,298	13.5%	65.4%	14.5%	6.6%
10-18	30,960,000	4,413,861	14.3	69.8	9.7	6.2
19-24	22,400,000	5,466,723	24.4	63.2	6.3	6.1
25-54	101,500,000	14,140,000	13.9	76.4	4.4	5.2
55-64	21,640,000	2,280,669	10.5	72.2	4.0	13.2
Total:	212,700,000	31,200,000	14.7	71.8	7.1	6.5

a) Adolescents are counted as insured if coverage is indicated either on the 'cover sheet' questions or the 'page 15' questions, except that those with private insurance from inside the household on the cover sheet and whose parents are uninsured are counted as uninsured. See Appendix A for details.

b) Private only includes all with employment-based coverage from someone in or outside the household and non-group insurance from household members; Medicaid includes all those with only Medicaid coverage; and other includes CHAMPUS, Medicare, or a combination of public and private coverage.

c) Row percentages may not total 100 percent due to rounding.

Source: March, 1988 CPS

2. The Percentage of Adolescents Who Were Uninsured Increased from 1987 to 1988

The March 1989 data show 4.6 million adolescents uninsured, or 15.0% of the adolescent population (Table 2). This increase of 0.7% from the 14.3% uninsured in the March, 1988 data is statistically significant at the 95% level (using a two-tailed test). This increase in the percentage of adolescents uninsured parallels an increase in the percentage uninsured in the.under-65 population as a whole: from 14.7% in 1987 to 15.4% in 1988 -- from 31.2 million to 33.0 million. The decline in insurance coverage, both among adolescents and adults, primarily results from a decline in the percentage of the population with private insurance. This follows a trend of declining private insurance coverage (controlling for income) throughout the 1980s.

TABLE 2

Health Insurance Status of the Under-65 Population, by Age Group, 1988

Age Group	Total Population	No Health Insurance [a] N	%	Insured: Private and Public [b,c] Private Only	Medicaid Only	Other
0-9	36,820,000	5,101,423	13.9%	64.8%	14.8%	6.5%
10-18	30,790,000	4,611,025	15.0	69.2	9.6	6.3
19-24	21,920,000	5,554,757	25.4	62.8	6.8	5.0
25-54	103,700,000	15,430,000	14.9	75.6	4.4	5.2
55-64	21,400,000	2,346,727	11.0	71.4	4.5	13.2
Total:	214,700,000	33,050,000	15.4	71.1	7.2	6.4

a) Adolescents are counted as insured if coverage is indicated either on the 'cover sheet' questions or the 'page 15' questions, except that those with private insurance from inside the household on the cover sheet and whose parents are uninsured are counted as uninsured. See Appendix A for details.

b) Private only includes all with employment-based coverage from someone in or outside the household and non-group insurance from household members; Medicaid includes all those with only Medicaid coverage; and other includes CHAMPUS, Medicare, or a combination of public and private coverage.

c) Row percentages may not total 100 percent due to rounding.

Source: March, 1989 CPS

3. The Parents of Uninsured Adolescents are Likely to Be Self-Employed or Work in Small Firms, and the Extent of the Small Firm Problem Appears to Have Worsened Since 1982

For a variety of reasons workers in small firms are less likely to have health insurance than workers in large firms. As a result, adolescents whose parents work in small firms are more likely than adolescents whose parents work in large firms to be uninsured. Combining data from 1987 and 1988, 27% of adolescents whose parents were self-employed were uninsured, 24% of adolescents whose parents worked in a firm with 1-25 employees were uninsured, compared to only 5% of adolescents whose parents worked in a firm with more than 1000 employees (Table 3). As a result of these differential probabilities of being uninsured, the parents of 18% of uninsured adolescents were self-employed, and the parents of 33% of uninsured adolescents worked in a firm with fewer than 25 employees; in contrast, such adolescents comprised only 8% and 16%, respectively, of all adolescents whose parents were in the labor force (Table 4).

There has been much journalistic discussion lately of the disintegration of the small group market, but no systematic evidence has been presented to date on the extent of the problem. Evidence on the increasing difficulties of small firms in purchasing insurance is presented below.

It is difficult to use the CPS to measure whether workers in small firms are contirbuting disproportionately to the growth of the uninsured since the CPS did not ask about firm size in any of the March supplements until 1988. In 1983, however, the May supplement to the CPS asked about firm size, and since half of the May sample was also sampled in March, 1983, the firm size data can be linked to the health insurance

TABLE 3

Adolescent Health Insurance Status
By Firm Size of Parent's Employer, 1987-88 [a]

Firm Size of Parent's Employer [b]	Uninsured	Insured: Private and Public [c] Private Insurance Only	Medicaid Only	Other	Total
Self-Employed [d]	26.9%	64.8	3.4	5.0	100%
1-24 Employees	23.9%	64.5	6.9	4.7	100%
25-99	16.2%	73.0	5.9	4.9	100%
100-499	9.7%	81.8	3.8	4.7	100%
500-999	7.4%	86.1	3.0	3.5	100%
1000+	4.8%	85.1	2.2	8.0	100%

Source: March 1988 and March 1989 CPS

a) Adolescents are counted as insured if coverage is indicated either on the 'cover sheet' questions or the 'page 15' questions, except that those with private insurance from inside the household on the cover sheet and whose parents are uninsured are counted as uninsured. See Appendix A for details. Table combines data from the 1988 and 1989 CPS samples.

b) Firm size of the head of household, unless the spouse has employer based or non-group insurance in his/her own name, and the head does not have insurance in his/her own name. Excludes adolescents not living with at least one parent, adolescents who are married, and adolescents who live with non-working parents.

c) Private only includes all with employment-based coverage from someone in or outside the household and non-group insurance from household members; Medicaid includes all those with only Medicaid coverage; and other includes CHAMPUS, Medicare, or a combination of public and private coverage.

d) Includes only unincorporated self-employed persons. Such persons are included as self employed regardless of the firm size in which they work.

TABLE 4

Distribution of Uninsured and Total Adolescent Population,
By Parent's Firm Size, 1987-88 [a]

Firm Size of Parent's Employer [b]	Percent of Uninsured	Percent of All Adolescents
Self-Employed [c]	18.2%	8.1%
1-24 Employees	32.4	16.2
25-99	16.5	12.2
100-499	12.2	15.0
500-999	3.4	5.5
1000+	17.2	42.9
Total:	100%	100%

a) Adolescents are counted as insured if coverage is indicated either on the 'cover sheet' questions or the 'page 15' questions, except that those with private insurance from inside the household on the cover sheet and whose parents are uninsured are counted as uninsured. See Appendix A for details. Table combines data from the 1988 and 1989 CPS samples.

b) Firm size of the head of household, unless the spouse has employer based or non-group insurance in his/her own name, and the head does not have insurance in his/her own name. Excludes adolescents not living with at least one parent, adolescents who are married, and adolescents who live with non-working parents.

c) Includes only unincorporated self-employed persons. Such persons are included as self employed regardless of the firm size in which they work.

data in 1983. Straightforward comparison of 1982 data with data from 1987 and 1988 would confuse real changes in the prevalence of insurance with changes due to the March, 1988 changes in question wording. Using a procedure described in Appendix C, I adjust the 1982 data to reflect the responses that I anticipate would have been provided if the 1988 questions had been asked in 1982. The basis of the adjustment is to estimate, by firm size, the amount of new health insurance uncovered among 10-14 year olds by the cover sheet questions in 1988 and 1989, and then assume that this same amount of additional insurance would have been uncovered in 1982 had the cover sheet questions been asked in 1982.

As seen in Table 5, among adolescents whose parents work in medium and large firms (100 workers or more), the percentage uninsured in 1987 and 1988 is similar to the adjusted percentage uninsured in 1982. In contrast, the percentage uninsured in small firms appears to have increased substantially -- in firms with 1-24 employees from 19% uninsured in 1982 (adjusted for question wording changes) to an average of 24% in 1987-88, and in firms with 25-99 employees from 12% uninsured in 1982 to 16% in 1987-88.

Although the exact magnitude of the estimated increase in the percentage uninsured among adolescents whose parents work in small firms depends on the adjustment technique used for the 1982 data, there is little doubt that most of the increase from 1982 to 1987-88 in the percentage of adolescents who are uninsured has occurred among adolescents whose parents work in firms with fewer than 100 employees.

TABLE 5

Percent of Adolescents Uninsured,
By Firm Size of Parent's Employer,
1982 and 1987-88

Firm Size of Parent's Employer [a]	Percent of Adolescents Who Are Uninsured: 1982 [b]	1987-88 [c]	Change
Self-Employed	25.0%	26.9%	+1.9%
1-24 Employees	18.6%	23.9%	+5.3%
25-99	11.9%	16.2%	+4.3%
100-499	9.9%	9.7%	-0.2%
500-999	7.4%	7.4%	-0.0%
1000+	5.5%	4.8%	-0.7%

Sources May/March merge, 1983 CPS, and March 1988 and March 1989 CPS

a) Firm size of the head of household, unless the spouse has employer based or non-group insurance in his/her own name, and the head does not have insurance in his/her own name. Excludes adolescents not living with at least one parent, adolescents who are married, and adolescents who live with non-working parents.

b) 1982 Data are adjusted to reflect anticipated effects of cover sheet questions and question wording changes in March 1988. See Appendix B for adjustment process.

c) Adolescents are counted as insured if coverage is indicated either on the 'cover sheet' questions or the 'page 15' questions, except that those with private insurance from inside the household on the cover sheet and whose parents are uninsured are counted as uninsured. See Appendix A for details. Table combines data from the 1988 and 1989 CPS samples.

4. Estimated Effects of Employer Mandates and Medicaid Expansions

Two types of proposals have been prominently advanced to reduce the number of uninsured. So-called 'employer mandates' require that employers offer group health insurance policies and pay a significant amount of the premiums for all employees who work more than a specified number of hours per week. Proposals to epxand Medicaid require that categorical eligibility requirements be relaxed and/or that income eligibility limits be increased, thereby requiring or encouraging all States to make Medicaid available to all those eligible below certain income levels.

Estimated effects of employer mandates and Medicaid expansions using the March, 1989 data are almost exactly the same as the estimated effects from the preliminary March, 1988 data. The methods used to estimate the effects of employer mandates and Medicaid expansions were described in the preliminary OTA report. Identical methods were used here.

As can be seen in Table 6, if employees who worked 30 hours or more per week were included in an employer mandate, approximately 55% of currently uninsured adolescents would become insured. Although reducing the hourly work threshold does increase the number of uninsured who would become covered slightly, its effect is minimal (at least within the range of 18 to 30 hours per week). For example, if the hourly work threshold was reduced to 25 hours per week an additional 2% of uninsured adolescents would be covered.

If categorical requirements for Medicaid eligibility were dropped and all adolescents with family income below a specified standard were eligible for Medicaid, then significant portions of the

TABLE 6

Potential Effects of Various Combination of Employer Mandates and Expansions in Medicaid on Uninsured Adolescents, Age 10-18

Medicaid Eligibility Level [a,c]	No Employer Mandate	Employees included in the mandate [a,b] (No. of Hours Worked Weekly) 30 hours	25 hours	18 hours
No expansion	0%	55%	57%	61%
Anyone below 50% of poverty	16	68	69	72
Anyone below 100% of poverty	37	78	79	81
Anyone below 150% of poverty	57	86	87	88
Anyone below 200% of poverty	70	90	91	92

a) Entries are the proportion of currently uninsured adolescents who would be insured under the indicated combination of an employer mandate and Medicaid expansion.

b) The employer mandates assume that all workers excluding the self-employed (and their dependents), who work more than the indicated number of hours for at least 26 weeks during the preceding year, would be covered.

c) The Medicaid expansions assume that all adolescents in families with income below the specified amount would be covered by Medicaid.

Source: Office of Technology Assessment, 1989, based on estimates from the March 1989 Current Population Survey.

currently uninsured could be covered by a Medicaid expansion. For example, if households with family incomes below 100 percent of poverty were included, 37% of currently uninsured adolescents would be covered. An additional 20% of uninsured adolescents would be included if the income standard was raised to 149 percent of poverty.

If employers were required to cover all workers who worked more than 18 hours per week and Medicaid was available to all adolescents in families with income below 200 percent of poverty, then only 8 percent of adolescents without health coverage would remain uninsured. An employer mandate that included employees of at least 30 hours per week combined with a Mediciad expansion that included all adolescents below 100 percent of poverty would cover 78 percent of uninsured adolescents.

5. Very few insured parents have uninsured adolescents, and most uninusred adolescents live with uninsured parents

The March, 1988 and March, 1989 data indicate that only 3.3% of all adolescents living with insured parents are uninsured: that is, almost all parents with adolescent dependents manage to insure these adolescents (Table 7). As a result, even though 83% of all adolescents live in a household with insured parents, only 19% of uninsured adolescents live with inusred parents (Table 8). The problems of uninsured adolescents are largely the problems of uninsured parents.

This conclusion contrasts with the conclusion that would be drawn from CPS data prior to March, 1988. In the March, 1987 data, 7.2% of adolescents living with insured parents were estimated to be uninsured (Table 15 of the preliminary report), and uninsured adolescents living with insured parents comprised approximately 40% of all uninsured adolescents.

TABLE 7

Percent of Adolescents Who AreUninsured,
by Parental Insurance Status, 1987-88 [a]

Parent's Insurance Status	Year 1987	1988
Not Insured	85.8%	86.4%
Insured	3.3%	3.3%
Not Living [b] With Parent	42.8%	46.5%

Source: March, 1988 and March, 1989 CPS

a) Adolescents are counted as insured if coverage is indicated either on the 'cover sheet' questions or the 'page 15' questions, except that those with private insurance from inside the household on the cover sheet and whose parents are uninsured are counted as uninsured. See Appendix A for details. (Table combines data from the 1988 and 1989 CPS samples.)

b) Includes all adolescents not living with their parents and married adolescents living with their parents.

TABLE 8

Distribution of Uninsured and Total Adolescent Population, by Parental Insurance Status, 1987-88 [a]

Parent's Insurance Status	Distribution of Uninsured	Distribution of All Adolescents
Not Insured	62.8%	10.7%
Insured	18.6	83.2
Not Living b With Parent	18.6	6.1
Total:	100%	100%

Source: March, 1988 and March, 1989 CPS

a) Adolescents are counted as insured if coverage is indicated either on the 'cover sheet' questions or the 'page 15' questions, except that those with private insurance from inside the household on the cover sheet and whose parents are uninsured are counted as uninsured. See Appendix A for details. Table combines data from the 1988 and 1989 CPS samples.

b) Includes all adolescents not living with their parents and married adolescents living with their parents.

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Appendix A

Counting the Uninsured

Moyer (1989) and Swartz and Purcell (1989, hereafter S&P) have created estimates of the number of uninsured based on March, 1988 CPS data. As both of these discussions note, question wording changes in March 1988 make the 1988 results not directly comparable with results from previous CPS surveys. Further, as S&P discuss in detail, there are a number of respondents with apparently inconsistent information on insurance status, and estimates of the number of uninsured individuals depend on the treatment of respondents with inconsistent informtion.

Both Moyer and S&P analyzed an interim CPS file of the March, 1988 data. This interim file differs from the final file currently available in two major ways: first, 'cover sheet' questions for 0-14 year olds on the interim file did not have any imputed data in cases in which responses were missing; in constrast the final file does include imputed data for respondents with missing cover sheet items. Second, the imputation process for missing data for adults 15 years old and older followed an old processing system in the interim file: a new, improved processing system was used for the final file.

The analysis in this appendix extends and refines the work of Moyer and S&P. In particular, it

- examines carefully the situations of children (0-14 years old) with apparently inconsistent information on health insurance, and creates decision rules for resolving these inconsistencies;
- considers the effects of the CPS process of imputing responses to the cover sheet questions;
- examines the situations of aduls (15 years and over) with apparently inconsistent responses to health insurance questions; and

estimates the effects of the new processing system for imputing missing responses on health insurance for adults.

A.1 Children With Apparently Inconsistent Information on Health Insurance

A person with one watch knows what time it is, while a person with two is likely to be confused. Some would conclude that it is better to have only one watch. However, if each watch provides an unbiased estimate of the true time, then it will be more accurate, if more confusing, to have two watches rather than one. The March, 1988 quesitonnaire adds a second method of measuring the health insurance status of children, and this creates uncertainties in situations in which the two measurement methods produce apparently inconsistent results. This section of the appendix discusses these situations and provides recommendations on how to proceed. First, the differences between the two measurement tools are described.

A.1.1 Description of the 'page 15' and 'cover sheet' Questions

A series of questions in the body of the CPS March supplement -- the page 15 questions -- ask adults (15 and over) about their health insurance status, and these responses, along with collateral information, are used to assign health insurance to children. The respondent is first asked whether any adult in the household was covered during 1987 by Medicare, by Medicaid, or by CHAMPUS, VA, or military health care (see Exhibit 1 for a copy of the questionnaire). Children (0-14 years old) are never assigned Medicare, are assigned Medicaid if their parent is covered by Medicaid (or if their parent reports receipt of AFDC income in 1987), and are assigned CHAMPUS if their parent

EXHIBIT 1.--

CPS HEALTH INSURANCE QUESTIONS, MARCH 1988

1. INTERVIEWER CHECK ITEM
Only CPS-665 for household ..... O
First CPS-665 of continuation if THIS, ... O
Second CPS-665 of continuation if THIS, O
Third, fourth, etc CPS-665 ..... O
(Fill all applicable items on this page)
(Transcribe items (3, 6–9, 13) from first CPS-665)

14. INTERVIEWER CODE
A B C D E F G H J K L M
0 0 0 0 0 0 0 0 0 0 0 0
0 1 2 3 4 5 6 7 8 9
0 1 2 3 4 5 6 7 8 9

12. TYPE INTERVIEW (CPS-665)
C Personal
C Telephone (Fill 13A below)
C Type A Noninterview (Transcribe items 1, 3, 6–10 on this page)

13A. DESCRIPTION OF LONGEST JOB (Items 46A-E) IN THIS CPS-665:
Yes C No O

FORM CPS-665
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

C P S – 6 6 5

INCOME SUPPLEMENT

Form Approved – O.M.B. No. 0607-0354 MARCH 1988

2. SAMPLE
A C
O O

3. CONTROL NUMBER

6. PSU NO.	7. SEGMENT NO.	8. SERIAL NO.	9. HOUSEHOLD NO.

INTRODUCTION
(Optional)

We have just completed the questions about employment and unemployment. Each March, the Census Bureau also collects information about the economic situation of Americans and their families for the previous year. I am going to ask these questions now. We don't expect all answers to be perfect, but please think about each question and answer it the best you can.

77. INTERVIEWER CHECK ITEM
TENURE (From General Card Item 16)
Owned or being bought 1
Rented 2
No cash rent 3

78. How many housing units are on this structure?
1 C 5–9 C
2 C 10+ C
3–4 C

79. INTERVIEWER CHECK ITEM
Some household members under age 15 O (Ask 80)
No household members under age 15 O (Skip to 82)

80. During 1987, how many of the children in this household under age 15 were covered by Medicare or Medicaid?
C All
C Some, but not all – Mark number
1 2 3 4 5 6 7 8 9 *
O None

81. During 1987, how many of the children under age 15 in this household were covered by a health insurance plan (Excluding Medicaid and Medicare)?
O All (Ask 81A)
O Some, but not all – Mark number
1 2 3 4 5 6 7 8 9 *
O None (Skip to 82)

81A. How many of these children were covered by the health insurance plan of someone not residing in this household?
O All
O Some, but not all – Mark number
1 2 3 4 5 6 7 8 9 *
O None

82. Interviewer Check Item
Some household members 5–18 years old O (Ask 83)
No household members 5–18 years old O (Skip to 84)

83. During 1987, how many of the children in this household usually ate a complete hot lunch offered at school?
O All
O Some, but not all – Mark number
1 2 3 4 5 6 7 8 9 *
O None

84. Interviewer Check Item
Entry in General card Item 29 is:
Under $30,000, NA or Ref. O (Fill 85)
$30,000 or more ..... O End questions

85. Interviewer Check Item
All or some marked in 83 O (Ask 86)
None marked in 83 or 83 blank O (Skip to 87)

86. During 1987, how many of the children in this household received free or reduced price lunches because they qualified for the Federal School Lunch Program?
O All
O Some, but not all – Mark number
1 2 3 4 5 6 7 8 9 *
O None

87. Interviewer Check Item
Owned marked in 77 O (Skip to 90)
Rented or no cash rent marked in 77 O (Ask 88)

88. Is this house in a public housing project that is, is it owned by a local housing authority or other public agency?
Yes O (Skip to 90)
No O (Ask 89)

89. Are you paying lower rent because the Federal, State, or local government is paying part of the cost?
Yes
No

90. Did anyone in this household get food stamps at any time during 1987?
Yes (Ask 91)
No (Skip to 94)

91. How many of the people now living here were covered by food stamps during 1987?
All C

92. In how many months of 1987 were food stamps received?
All C

93. What was the value of all the food stamps received during 1987?
(Add monthly amounts to obtain annual figure)
$
(Nearest dollar)
(Ask 94)

94. The government has an energy assistance program which helps pay heating costs. This assistance can be received directly by the household or it can be paid directly to the electric company, gas company or fuel dealer.
Since October 1, 1987, has this household received assistance of this type from the federal, state, or local government?
Yes (Ask 95)
No (End questions)

95. Altogether, how much energy assistance has been received since October 1, 1987?
$
(Nearest dollar)

CODER NUMBER
A B C D E F G H J K L M
0 0 0 0 0 0 0 0 0 0 0 0

NAME (Continued)				
LINE NUMBER (from 16A)	Page 3	Page 4	Page 5	Page 6
74. There are several government programs which provide medical care or help pay medical bills. During 1987 was anyone in this household covered by: 74A. Medicare (for the disabled and elderly)? Yes ○ No ○ (Skip to 74C)				
74B. Who was that? (Anyone else?)	Yes ○ No ○	Yes ○ No ○	Yes ○ No ○	Yes ○ No ○
74C. Medicaid (for the needy)? Yes ○ No ○ (Skip to 74E)				
74D. Who was that? (Anyone else?)	Yes ○ No ○	Yes ○ No ○	Yes ○ No ○	Yes ○ No ○
74E. CHAMPUS, VA, or military health care? Yes ○ No ○ (Skip to 75A)				
74F. Who was that? (Anyone else?)	Yes ○ No ○	Yes ○ No ○	Yes ○ No ○	Yes ○ No ○
75A. Other than Medicare, Medicaid, or military health insurance) during 1987, was anyone in this household covered by a health insurance plan? Yes ○ No ○ (Skip to 76)				
75B. Who was that? (Anyone else?)	Yes ○ No ○	Yes ○ No ○	Yes ○ No ○	Yes ○ No ○
(Complete 75C–F for each person with a "Yes" in 75B) 75C. Was . . .'s health insurance coverage from a plan in . . .'s own name?	Yes ○ (Ask 75D) No ○ (Go to next person with a "Yes" in 75B or Skip to 76)	Yes ○ (Ask 75D) No ○ (Go to next person with a "Yes" in 75B or Skip to 76)	Yes ○ (Ask 75D) No ○ (Go to next person with a "Yes" in 75B or Skip to 76)	Yes ○ (Ask 75D) No ○ (Go to next person with a "Yes" in 75B or Skip to 76)
75D. Was this health insurance plan offered through . . .'s current or former employer or union?	Yes ○ (Ask 75E) No ○ (Skip to 75F)	Yes ○ (Ask 75E) No ○ (Skip to 75F)	Yes ○ (Ask 75E) No ○ (Skip to 75F)	Yes ○ (Ask 75E) No ○ (Skip to 75F)
75E. Did . . .'s employer or union pay for all, part, or none of the cost of this plan?	All ○ Part ○ None ○	All ○ Part ○ None ○	All ○ Part ○ None ○	All ○ Part ○ None ○
75F. What other persons were covered by this health insurance plan? (Mark all that apply) (Go to 75C for next person with "Yes" in 75B or go to 76)	Spouse ○ Child(ren) in household ○ Child(ren) not in the household ○ Other ○ No one ○	Spouse ○ Child(ren) in household ○ Child(ren) not in the household ○ Other ○ No one ○	Spouse ○ Child(ren) in household ○ Child(ren) not in the household ○ Other ○ No one ○	Spouse ○ Child(ren) in household ○ Child(ren) not in the household ○ Other ○ No one ○
76. Interviewer Check Item Who worked last year? (Yes in 29A or 29B)	Yes ○ No ○	Yes ○ No ○	Yes ○ No ○	Yes ○ No ○
(Complete 76A-76B for each person with "Yes" in 76) 76A. Other than Social Security did the (any) employer or union that . . . worked for in 1987 have a pension or other type of retirement plan for any of its employees?	Yes ○ (Ask 76B) No ○ (Go to next person with "Yes" in 76 or Skip to 77 on page 1)	Yes ○ (Ask 76B) No ○ (Go to next person with "Yes" in 76 or Skip to 77 on page 1)	Yes ○ (Ask 76B) No ○ (Go to next person with "Yes" in 76 or Skip to 77 on page 1)	Yes ○ (Ask 76B) No ○ (Go the next person with a "Yes" in 76 or Skip to 77 on page 1)
76B. Was . . . included in that plan? (Go to 76A for next person with "Yes" in item 76 or Skip to item 77 on Page 1)	Yes ○ No ○	Yes ○ No ○	Yes ○ No ○	Yes ○ No ○
NOTES:				

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SOURCE: U.S. Department of Commerce, Bureau of the Census, Form CPS-665, March 1988.

reports being covered by CHAMPUS (or if one of their parents is a full time member of the armed forces).

The respondent is then asked,

> (Other than Medicare, Medicaid, or military health insurance) during 1987, was anyone in the housheold covered by a health insurance plan?

The 'anyone' in the question above refers to adults 15 years and older. If any adult is reported as covered, the question is asked for each adult covered,

> Was _____'s health insurance coverage from a plan in _____'s own name?

and if yes, then the question is asked,

> What other persons were covered by this health insurance plan?

Responses to this last question are coded as spouse, children in household, children not in household, other, and no one. CPS staff uses these responses to assign coverage to dependents. Dependents are assigned coverage as children if they:

> 1) are the child of the person with coverage (other relatives and unrelated individuals are never assigned dependent coverage);
>
> 2) Are 21 or younger; and
>
> 3) Are never married.

In addition to the page 15 items, the CPS questionnaire includes 'cover sheet' items on health insurance. These cover sheet items are actually asked at the end of the questionnaire, usually within a minute or two of the page 15 items. The respondent was asked,

> "During 1987, how many of the children in this household under age 15 were covered by Medicare or Medicaid?", and
>
> "During 1987, how many of the children under age 15 in this household were covered by a health insurance plan?"

Permissible responses to each of these questions were 'all', 'some, but not all', and 'none'. Respondents who answered 'some, but not all' were asked how many children were covered. Respondents who reported that some or all children were covered by a health insurance plan were asked,

> "How many of these children were covered by the health insurance plan of someone not residing in this household?"

A.1.2 Comparison of Responses to 'Page 15' and 'Cover Sheet' Health Insurance Questions

The health insurance status of children under 15 can be estimated from the page 15 questions and/or from the cover sheet questions. A comparison of responses to the two sets of questions is shown in Table A-1.

For the most part, there is substantial consistency between the two sets of responses. For example, of the 33 million adolescents who are assigned private insurance coverage on the basis of page 15 responses, 31.8 million, or 96% are assigned private insurance coverage by the cover sheet questions. For the purposes of classifying children as either insured of uninsured, 88% have consistent responses -- only the children in the top row and left most column (excluding the 6.7 million at the top left) are measured as insured with one instrument and uninsured with the other.

Whle it is somewhat comforting that 88% have consistent responses, the question remains about what to do with the 12% in which responses differ. Of those who are uninsured based on page 15 questions, 36% were assigned insurance based on the cover sheet. Of those uninsured on the cover sheet, 27% are assigned insurance on page 15. Should these children be counted as insured or uninsured? For each category of children, I consider this question below.

TABLE A-1

Health Insurance of Children Age 0-14
Comparison of Responses to 'Cover Sheet' and 'Page 15'
Health Insurance Questions, 1987
(In Thousands)

Page 15 Responses	Cover Sheet Responses: Uninsured	Private Coverage From Inside The House	Private Coverage From Outside The House	Public	Public & Private	Total
Uninsured	6,713	1,526	1,312	841	118	10,510
Private	1,172	30,621	993	49	206	33,041
Medicaid	812	94	97	5,307	329	6,640
Champus	360	830	72	7	3	1,273
Medicaid & Private	62	250	14	56	285	668
Champus & Private	25	529	25	0	1	579
Total:	9,145	33,850	2,512	6,261	942	52,710

Source: March, 1988 CPS

A.1.3 Uninsured on page 15, insured from inside the house on cover sheet (Cell (1,2))

There are 1.5 million children who are not assigned coverage based on page 15 questions, but for whom it is reported, on the cover sheet, that they are covered by the health insurance plan of someone living inside the household.[1] Why is this?

Some of these children -- 260,897 -- are other relatives or unrelated individuals; that is, they are not the natural or adopted child of any adult in the household. Given the CPS editing algorithm, they cannot be assigned coverage from page 15 items. However, it is certainly possible that they are covered by the health insurance policy of an adult in the household, or by a non-group policy bought to cover them. Thus, for these 261,000 children there is no inconsistency between the cover sheet and page 15, and it makes sense to believe the cover sheet response that these children are, in fact, covererd by insurance.

For the remaining 1.265 million children, it will be useful to examine the insurance status of their parents and their family income (Table A-2). There are 478,000 children whose parents have group insurance. Their parents responded on page 15 that this insurance did not cover the children, but report on the cover sheet that the children are covered by private insurance. One response is clearly in error, but it is not clear which one. These children are from families with substantial income -- 49% are above 300% of poverty and 31% are between 200-300% of poverty. Since it is rare for insured parents to not insure

1 There are an additional 118,000 such children who are also assigned Medicaid/Medicare coverage on the cover sheet; these children will be considered separately below.

TABLE A-2

Parental Insurance Status and Family Income of Children Age 0-14 Who Are Insured on Page 15 and Covered by Insurance From inside the House on Cover Sheet Questions [a]

Family Income Relative to Poverty	Parental Insurance Status: Uninsured	Employment Related	Non-Group	Private, [b] Unknown Source	Public	Total
< 50%	10.8%	0%	1.4%	14.8%	0%	7.0%
50-99	8.2	3.3	14.8	8.0	0	6.4
100-149%	16.6	8.8	16.2	9.9	30.4	12.5
150-199%	18.3	8.0	3.6	14.1	24.7	13.0
200-299%	27.6	30.6	21.6	22.8	6.6	27.0
≥300%	18.6	49.4	42.5	30.3	38.3	34.1
Total:	100%	100%	100%	100%	100%	100%
Number: (In Thousands)	433	478	50	278	27	1,265

Source: March, 1988 CPS

a) Excludes 261,000 0-14 year olds who are not the natural or adopted child of any adult in the family. Also excludes those children who also have public coverage indicated on the cover sheet.

b) Includes adults who say that they are covered by health insurance but do not have a policy in their own name and are not covered as the dependent of any other household member.

their children, and since these parents did report on the cover sheet that their children are insured, it makes sense to believe, on balance, that the error occurred on page 15, and that these children should be counted as insured. Although income levels are somewhat lower, a similar statement makes sense for the 50,000 children whose parents have non-group coverage.

A different conclusion is appropriate for the 433,251 children whose parents report themselves as uninsured. The parents of these children report that they (the parents) do not have health insurance coverage, but report on the cover sheet that the children are covered by someone in the house. One of these answers must be wrong. The income distribution of this group is below that of all insured children, but above that of all uninsured children. We can't know for sure, but a reasonable conclusion is that these children are in fact uninsured, and that the response error occurred on the cover sheet and not on page 15.

The final category of interest in Table A-2 are the children whose parents have private coverage from an unknown source. These are parents who report that they are covered by a health insurance policy, but do not have a policy in their own name, and are not covered as a dependent on the policy of a household member. As discussed below in the section on coverge of adults, these people with 'mystery' coverage either:

> are covered by someone from outside the house (e.g., a separated or divorced spouse);
>
> are responding incorrectly when asked whether they have a plan in their own name;
>
> are responding incorrectly when they are asked if they are covered by health insurance.

As will be shown below, most adults with private coverage from an unknown source probably belong to one of the first two groups above. Given CPS editing rules, the child of an adult with such coverage cannot be assigned coverage from page 15 questions; for most children in this category, there is no inconsistency between finding coverage on the cover sheet and not being assigned coverage on page 15. I conclude that these children should be counted as covered.

The decisions made here are intermediate between the decisions made by Moyer and those of S&P. Moyer assumed that all children with coverage on the cover sheet should be counted as covered; S&P argue that none of the children with cover sheet coverage from inside the household should be counted as covered. I advocate an intermediate position, in which the 433,000 children whose parents are uninsured and for whom the cover sheet assigns coverage from inside the household should be considered as uninsured, but the other 1.1 million children who are uninsured on page 15 but covered from inside the household on the cover sheet should be counted as insured.

A.1.4 Children uninsured on page 15, insured from outside the household on the cover sheet (Cell (1,3))

The main purpose of asking the cover sheet questions was to determine how many children were receiving coverage from outside the household, and it is perfectly consistent to believe that almost all of the 1.3 million children in this category are in fact covered by health insurance. As seen in Table A-3, 78% of these children live with only one parent, and presumably have coverage from an absent parent. An additional 10.8% are either an other relative or an unrelated individual, and may have coverage coming from an absent parent. The

TABLE A-3

Living Arrangement of Children Who Are Uninsured on Page 15 and Covered From Outside the House on the Cover Sheet

Living Arrangement	Number	%
Two Parents	145	11.1%
Mother Only	970	74.0
Father Only	54	4.2
Other Relative	126	9.6
Unrelated Individual	16	1.2
Total:	1,312	100.0%

Source: March, 1988 CPS

situation of the remaining 10.8% (142,000 children) is more confusing. These children live in a two parent household, but still are reported as having coverage coming from outside the house. Perhaps one of the adults in the house is a step-parent, and coverage is coming from an absent natural parent. Perhaps a mistake has been made and the coverage should have been coded as coming from inside the house, or perhaps a mistake has been made and these children should be counted as uninsured. I leave them as insured, but without great confidence that this is the correct decision.

A.1.5 Children uninsured on page 15, insured by Medicaid on cover sheet (Cell (1,4)).

There are 820,000 children who are uninsured on page 15, but who are assigned Medicaid coverage from the cover sheet. It makes sense to think that most of these children are in fact covered by Medicaid.

One-third of these children are an 'other relative' of the family head and an additional 9.6% are unrelated to the family head (Table A-4). Such children are never assigned Medicaid coverage from the page 15 questions, and there is no reason to disbelieve the cover sheet response that they are covered.

Many of the remaining children are in one parent families with low income -- the sort of family that is often eligible for Medicaid. When an unmarried woman with an annual income of 50% of the poverty level reports on the cover sheet that her children were covered by Medicaid in 1987, it makes sense to believe that she is reporting accurately. It is unclear why this woman did not report, two minutes earlier, that she herself was covered by Medicaid -- there are few circumstances in which a natural child of a poor unmarried woman will be

TABLE A-4

Family Structure and Family Income of
Children Who Are Uninsured on Page 15
And Covered by Medicaid on Cover Sheet

Family Income as a Percent of Poverty	Family Structure: Two Parents	One Parent	Other Relative	Unrelated Individual	Total
< 50%	29.1%	30.9%	30.9%	100%	37.1%
50-99%	32.2	35.3	34.8	0	31.0
100-149%	11.5	7.4	9.5	0	8.4
150-199%	10.8	18.3	10.6	0	12.0
200-299%	9.9	4.0	8.9	0	6.8
≥300%	6.5	4.1	5.4	0	4.7
Total:	100%	100%	100%	100%	100%
Number: (In Thousands)	209	264	288	81	841
Row Total:	(24.8%)	(31.4%)	(34.2%)	(9.6%)	(100%)

Source: March, 1988 CPS

eligible for Medicaid but the woman herself ineligible. One of the reports -- either the page 15 or the cover sheet information -- is probably in error. For most such children, it makes sense to believe the cover sheet assertion that they are covered.[2]

There is substantially more confusion about Medicaid coverage than about private insurance coverage. There are 473,000 children who live with one or both parents who are not assigned Medicaid coverage on page 15 but are assigned such coverage on the cover sheet. Further, as can be seen in Table A-1 and will be discussed below, there are 812,000 children assigned Medicaid on page 15 but not from the cover sheet. These apparent discrepancies are a much larger percentage of the 5.9 million adolescents who are assigned Medicaid from both page 15 and the cover sheet than is the case for private insurance coverage.[3] More frequent discepancies may result from: more frequent language difficulties, resulting in confusion about the questions; and/or the fact that some women who receive Medicaid as a by-product of AFDC but who use few or no medical services may only be dimly aware that they are covered by Medicaid, and thus may be more likely than the privately insured to give discrepant answers to questions worded slightly differently.

When faced with two answers on Medicaid coverage, one in which a woman says that her children are covered, and the other in which the woman says that she hereself is not covered (or vice-versa), which answer should we believe? There are two reasons to believe the positive

---

2 It is probably also the case that the single parent of most such children received Medicaid. I do not, however, make an adjustment of the adult data for this potential Medicaid undercount, although such an adjustment is arguably warranted.

3 The 5.9 million is a sum (from Table A-1) of the 5.3 million in cell (3,4), the 329,000 in cell (3,5) and the 285,000 in cell (5,5).

answer. First, it is hard to imagine why a woman would say that her children were covered by Medicaid if they were not, but easier to imagine that a woman might, in response to a single question, forget that her children were covered. Second, the CPS has consistently produced estimates of the number of Medicaid beneficiaries that are below the estimates produced from program records. By believing any positive response to Medicaid coverage, the CPS estimates of coverage are closer to the beneficiary counts from program records than by adopting alternative decision rules.

A small number of children with Medicaid on the cover sheet but uninsured on page 15 are in two parent families with income well above normal Medicaid eligibility levels, and the cover sheet claim that these children are covered by Medicaid must be viewed with suspicion. It is possible that they were covered by Medicaid for part of the preceding year and that their family situation/income changed significantly in 1987. It is also possible that some such children are Medicaid eligible by virtue of spenddown. It seems more likely than not that some are erroneously ascribed Medicaid coverge. However, there are few such children, and I do not explicitly adjust their coverge status.

A.1.6 Children uninsured on page 15, covered by both public and private insurance on the cover sheet (Cell 1,5)

There are 118,000 children who are not assigned insurance coverage from page 15 and who are assigned both public and private insurance coverage on the cover sheet. Almost half of these children (48%) are either other relatives or unrelated individuals; these children cannot be assigned dependent coverage on page 15, and there is no inconsistency between the cover sheet and page 15 responses by them. Most of the remaining children are in poor, one parent families, and it

makes sense to believe that they are covered. In the analysis in the text, public coverage is assumed for all such children, and private coverage is assumed except for those few children who are covered from inside the house on the cover sheet and live with uninsured parents.

A.1.7 Children assigned insurance from page 15, uninsured on Cover Sheet (Cells (2,1) through (2,5))

There are 1.17 million children whose parents, on page 15, say that they have private insurance which covers their children, but who say in response to the cover sheet that their child is uninsured. These 1.17 million are 3% of all children assinged private coverage on page 15. Some parents, having just told the interviewer on page 15 that their child is covered, may be confused and assume that the interviewer, on the cover sheet questions, is asking about insurance other than that already discussed. Others, at the end of a long interview, may simply be making a mistake. It makes sense to believe that the mistaken answer is the cover sheet denial of coverage for children rather than the page 15 assertion of coverage: the overwhleming majority of insured parents with substantial incomes manage to insure their children; it seemse likely that the children under consideration here are insured rather than uninsured.

Similarly, there are 812,000 children assigned Medicaid on page 15 but whose parents do not say that they are covered by Medicaid on the cover sheet. As discussed above, it makes sense to believe that most of these children are in fact covered by Medicaid. Some of these children were assigned Medicaid on page 15 not because their parent reported receipt of Medicaid, but rather because their parent reported receipt of AFDC benefits.

Finally, there are 360,000 children assigned CHAMPUS on page 15, but who are uninsured from the cover sheet. Unlike the private insurance and Medicaid differences, in which either the page 15 or the cover sheet response is inaccurate, there is not necessarily any such inaccuracy here. Most parents of CHAMPUS eligible children assume that the question 'How many of the children were covered by a health insurance plan?' assume that CHAMPUS is included as a health insurance plan, but it would be understandable confusion for the respondents to assume that it was a government program (on page 15 it was treated as such, and not as a private health insurance plan). Thus, it makes sense to think that these 360,000 children are in fact covered by CHAMPUS.

A.1.8 Imputed Answers to the Cover Sheet Questions

Among children who were not assigned insurance (either private or public) from the page 15 questions, and who were not covered by a public program on the cover sheet, there were 1.05 million with missing answers to the cover sheet question on whether any children in the household were covered by private insurance. These 1.05 million are 11.0% of the 9.55 million children without any insurance on page 15.

The Bureau of the Census imputes answers for these 1.05 million children by finding similar households in which the cover sheet questions were answered, and assuming that the answers for the similar household applies to the household with missing information as well (a procedure called hot-decking). The result of this hot-decking procedure is shown in Table A-4.

Among households with valid answers to the cover sheet questions, 24.6% of the children who were uninsured on page 15 and who

TABLE A-5

Percentage of Page 15 Uninsured Children Who Are Assigned Private Insurance From Cover Sheet By Whether Cover Sheet Questions Had Valid Answers Or Imputed Data

Status of Cover Sheet Questions

Cover Sheet Response	Cover Sheet Questions Answered		Cover Sheet Data Missing		Total	
	Number	%	Number	%	Number	%
Uninsured	6,414	75.4%	780	74.4%	7,493	75.3%
Privately Insured	2,090	25.6%	268	24.6%	2,358	24.7%
Total	8,504	100%	1,048	100%	9,551	100%

Source: March, 1988 CPS

Note: This table includes children who were not covered by public or private insurance on page 15, and who were either uninsured or covered by private insurance on the cover sheet questions.

were not covered by public insurance on the cover sheet received private insurance as a result of their parent's answers to the cover sheet question. Among children with imputed cover sheet responses, 25.6% -- virtually the same amount -- are assigned private insurance as a result of cover sheet responses. Thus, there is no evidence that the imputation process has eroneously assigned private insurance to children who should not be so assinged. It is not apparent how Moyer treated children with missing answers to the cover sheet items, and I am not sure which 700,000 children with imputed answers S&P refer to in their analysis.

A.2.1 Insurance Coverage for Adults

Both Moyer and S&P discuss changes in health insurance questions for adults in the March, 1988 questionnaire, but neither discussion clearly states the most important change in question wording that occurred. The questions for the pre-1988 surveys asked whether each adult (15 and over) had a health insurance policy, while the 1988 question asks whether each adult is covered by a health insurance policy. These questions appear almost identical, so both Moyer and S&P focus on the change in question order and on change in the universe of whom the question was asked.

However, the intent of the questions is quite different, as the interviewer instructions indidcate. Interviewers were instructed to interpret the pre-1988 question to mean 'did anyone have a health insurance plan in their own name?' If the respondent was covered as a dependent then the respondent was not supposed to be coded as 'having' a health insurance plan (U.S. Department of Commerce, Bureau of the

Census, 1987). In contrast, the 1988 question is clearly intended to measure coverage from any private source, regardless of whether the respondent is the primary subscriber to the policy. Just as the child who was insured by an absent father would have been counted as uninsured in the pre-1988 survey, a teenager/young adult covered by the policy of an absent parent would have been counted as uncovered in the pre-1988 surveys but should be counted as covered by the March, 1988 questions, and a woman covered by an insurance policy of an absent/ex-spouse should have been counted as uninsured in the pre-1988 survey, but should be counted as covered by the March, 1988 questions.

From the March, 1988 questions, there are 4.47 million adults who report being covered by health insurance, but who neither have a health insurance plan in their own name, nor are covered as the dependent of someone else in the household. In the interests of understanding the effects of the change in question wording, this section examines the characteristics of these 4.47 million adults more closely.

As seen in Table A-6, these adults with 'mystery' coverage are disproportionately young -- 56% are 24 or under, compared to 22% of the 15-64 year old population. It makes sense that coverage coming from outside the household would primarily occur for younger people.

Further, as can be seen in Table A-7, most of this mystery coverage for young people is for those in family situations where it makes sense to think that coverage would be coming from outside the household. Of the 930,000 mystery covered 15-18 year olds, over 700,000 live with one parent or no parents. Of the 845,000 mystery 19-21-year olds, just under 700,000 live with one or no parent. Almost all the

TABLE A-6

Percentage of Adults 15-64 With Health Insurance
Coverage Apparently As a Dependent of
Someone Outside the Household ("Mystery Coverage")
By Age Group, 1987
(In Thousands)

Age Group	Mystery Coverage: No		Mystery Coverage: Yes		Total	
	Number	%	Number	%	Number	%
15-18	11,310	92.4%	930	7.6	12,240	100%
19-21	8,602	91.0%	845	9.0	9,447	100%
22-24	9,458	92.9%	721	7.1	10,179	100%
25-34	37,980	98.1%	727	1.9	38,707	100%
35-54	52,250	98.3%	899	1.7	53,024	100%
55-64	17,572	98.1%	348	1.9	17,920	100%
Total:	137,047	96.8%	4,470	3.2	141,517	100%

Source: March, 1988 CPS

Note: "Mystery Coverage" is defined as adults who say that they are covered by private health insurance, but do not have a policy in their own mane, and are not covered as a dependent of any other household member.

TABLE A-7

Family Structure of Adults, Age 15-21,
With Mystery Coverage, 1987
(In Thousands)

Age Group	Family Structure: Two Parents		One Parent [a]		No Parent		Total	
	Number	%	Number	%	Number	%	Number	%
15-18	226	24.3%	405	43.5	299	32.2	930	100%
19-21	158	18.7%	154	18.3	532	63.0	844	100%
Total	384	22.6%	559	31.5	832	46.9	1,773	100%

Source: March, 1988 CPS

a) Includes 3,000 15-21 year olds who are married and live with both parents.

mystery 22-24 year olds are single, and most are students (data not shown).

There are some mystery 15-21 year olds with puzzling patterns of answers: there appears to be at least one inconsistent answer for the 226,000 15-18 year olds living and the 158,000 19-21 year olds who are living with two parents. Approximately 90% of these 15-21 year olds live ith parents who are insured, and perhaps an error was made in response to the question 'Who else was covered?' Some of these 15-21 year olds may be living with a step-parent, and receive coverage from an absent natural parent. Some may be incorrectly reporting that they are covered.

Although mystery coverage is found disproportionately among the young, there are almost 2 million adults age 25-64 with mystery coverage. These adults are probably not covered as the dependent child of someone outside the house. The following material examines their situation more closely.

Some may in fact be covered by an absent spouse. As seen in Table A-8, adults who have been married but who are divorced, widowed, or separated are more likely to have mystery coverage than adults who are either married or single. This makes sense if mystery coverage does reflect being covered by someone from outside the house.

Further, it makes sense to think that most of the single young adults (22-24) with mystery coverage (237,000) are covered by a parent (most are students), although some may be mistakenly claiming coverage, and others may simply be answering the question 'do you have a policy of your own?' incorrectly.

TABLE A-8

Number of Adults, Age 22-64, With Mystery Coverage, By Age Group and Family Structure, 1987
(in thousands)

Age Group	Family Structure: Married Spouse Present		Family Structure: Divorced, Widowed, Separated, Married-Spouse Absent		Family Structure: Single	
	N	% [a]	N	% [a]	N	%
22-24	39	1.2%	28	5.8%	654	10.0%
25-34	272	1.2%	218	5.0%	237	2.2%
35-54	483	1.2%	362	3.8%	54	1.4%
55-64	186	1.4%	138	3.9%	25	3.3%

Source: March, 1988 CPS

a) Entries are the percent that those with mystery coverage are of all those in the relevant family structure and age group -- e.g. the 39,000 married 22-24 year olds with mystery coverage whose spouse is present are 1.2% of all 22-24 year olds who are married and have a spouse present.

What of the over 900,000 married adults with mystery coverage? Surely they are not getting coverage from outside the household. Many (453,000) are married to a person who also has mystery coverage. For these 453,000 it is likely that one spouse has a plan in his/her own name, but reported this incorrectly. It is possible, however, that some such people are really uninsured. An additional 267,000 have a spouse with a plan in the spouse's name, but in response to 'who else is covered?', 'spouse' is not chosen. For these 267,000 persons one of the two answers is almost certainly a mistake: either the spouse's plan should have been reported as covering the person, or the person should not be reported as covered. Which answer is wrong? I do not know for sure. Even more mysteriously, there are 259,000 who are married, have 'mystery' coverage, and whose spouse is uninsured. It is difficult to know what their true insurance status is.

Further work, comparing responses in the March 1988 and March 1989 data with responses for similarly situated persons in prior years would allow estimates of the extent to which questions wording changes for these married adults have resulted in decreases in the estimates of the number of uninsured.

A.3 Imputation procedures for missing health insurance information for adults

As described in Bureau of the Census (1989), a new processing system was created for missing data in the March, 1988 questionnaire. The new processing system included improved techniques for imputing missing responses, and resulted in larger estimates of aggregate income, and slightly lower percentages of the population in poverty.

The new processing system also resulted in a decrease in the number of people counted as uninsured (see Table A-9). For 15-64 year olds, the old processing system produced a count of 24,346,895 uninsured, 228,000 above the count of 24,008,330 from the new processing system. The changes are concentrated among 15-18 year olds and among 55-64 year olds.

As a result of this new processing system, the estimated number of uninsured 15-18 year olds declined by 82,000 between the preliminary March, 1988 data and the final March, 1988 data.

Summary

The March, 1988 CPS asks about insurance coverage using more than one question. For children, questions about insurance coverage are asked both on the cover sheet and on page 15. For adults, insurance coverage is asked directly ('Were any adults covered by insurance?') and can be assigned indirectly through dependent coverage.

Multiple measures of the same variable inevitably create confusion when they produce conflicting results. I suspect that if multiple measures of insurance status were added to other surveys (e.g, SIPP, HIS, or NMES) that there would be some people in each of these surveys who would respond inconsistently.

Further, upon close examination of the apparent inconsistency between measures, some of the apparent inconsistencies turn out not to be inconsistencies at all -- e.g., responses for children who do not live with their parents -- and in other instances one can be reasonably confident about the source of the error -- e.g., the children in families with income above 300% of poverty whose parents are insured and

TABLE A-9

Comparison of Old and New Processing Systems For Missing Data Among Adults, 15-64, 1987
(in thousands)

Age Group	Old Processing System		New Processing System		Difference	
	Number Uninsured	% Uninsured	Number Uninsured	% Uninsured	Number Uninsured	% Uninsured
15-18	2,203	15.2%	2,121	14.7%	-82	-0.5%
19-24	5,482	24.6%	5,467	24.2%	-15	-0.2%
25-54	14,134	13.9%	14,140	13.9%	6	0.0%
55-64	2,418	11.2%	2,281	10.5%	-137	-0.7%
Total:	24,237		24,008		-229	

whose parents report on the cover sheet that the children are covered but whose parents report on page 15 that the parent's insurance does not cover the children.

Future questionnaire development work should focus on isolating the relatively few children and adults for whom there are apparent inconsistencies in health insurance information, and asking follow-up questions to resolve these inconsistencies. Such work would both provide a more valid estimate of the number of uninsured in the future, and, if carefully constructed, could be used to adjust, if necessary, estimates from the March, 1988 and March, 1989 data.

Appendix B

Differences in Analytic Methods Between Preliminary OTA Report and This Report

Three changes in analytic methods have been made between the preliminary report and this report which will have small effects on the comparison of results in the earlier report to results report here. Each change is described below.

B.1 Assignment of Family Income

On the preliminary March, 1988 public use file (and in previous CPS files), the family income of 'sub-families' was computed as the income of members of the sub-family. For example, in a household in which two forty-year olds live with their twenty year old daughter and their two year old granddaughter, the twenty year old and her two year old daughter are considered a sub-family. In the preliminary March, 1988 public use file, a sub-family record indicated that the sub-family income was equal to the combined income of the 20 year old and the 2 year old, and many such sub-families, based on this definintion of family income, appear to be in poverty. In the preliminary report, I used the income of the subfamily to determine the poverty status of subfamily memebers.

In Census Bureau annual tabulations of the number of persons in poverty, the Census examines the income of the entire family unit (in the example above, the combined income of the two forty year olds, the 20 year old, and the two year old), and compares this measure of family income to the poverty level for the family size. In this updated report

I have used the same technique as the Census Bureau for assigning family income and computing income relative to the poverty level.

As a result of this change, the estimated percentage of adolescents in poverty in the updated tables in Appendix D is slightly lower than the percentage estimated in the preliminary report. This change does not, however, affect any of the substantive conclusions reached in the preliminary report.

B.2 Inlcusion of Unrelated Individuals under-15

The preliminary report excluded unrelated individuals who were under 15 years old. All such individuals would have been counted as uninsured (since CPS editing rules did not assign insurance as dependents to persons who were not the natural or adopted child of an adult in the family), but it was suspected that many were foster children covered by Medicaid. Rather than include them and show them as uninsured, they were excluded.

The cover sheet questions provide information about the insurance status of such children, and these children are included in this report. Of the 205,000 unrelated individuals under-15 years of age, 28.5% are covered by private insurance only, 39.4% by Medicaid only, 9.3% by both public and private insurance, and 22.8% are uninsured.

B.3 Parental Work Status

In the preliminary March, 1988 public use file, members of the armed forces were coded as having worked for 0 weeks and 0 hours per

week; they were effectively counted as non-workers. In Table 7 in the preliminary report, very high percentages of the adolescent children of non-workers are counted as having 'other' health insurance (44% of the adolescent children of non-workers with family income of 150-299% of poverty had other health insruance, and 62% of non-workers with family income of 300% of poverty and above). This 'other' health insurance was primarily CHAMPUS.

In the final March, 1988 file, members of the armed forces are considered to be workers, and in the tables in Appendix D the adolescent children of armed forces members are included as the children of workers. This explains minor differences between the updated Table 7 in Appendix D and the Table 7 in the preliminary report.

Appendix C

Adjusting the March, 1983 Data to Reflect the Question Wording Changes Made in March, 1988

In the text of this report, comparisons were made, by firm size of parent's employer, between the percentage of adolescents uninsured in the May/March 1983 CPS and the March 1988 and 1989 CPS. We have seen in Appendix A of this report and Appendix A of the preliminary report that questions wording changes in March, 1988 caused a large decrease in the estimated number of adolescents who are uninsured. Straightforward comparison of results from 1983 and 1988/89 would confound real changes with question wording changes.

An estimate of the effect of the question wording changes on 10-14 year olds is shown in Table C-1. As can be seen there, based on page 15 questions alone, 18% of 10-14 year olds whose parents were in the labor force were estimated to be uninsured in the March, 1988 and March, 1989 CPS.[1] The cover sheet questions added coverage for an additional 5.4% of 10-14 year olds whose parents were in the labor force.[2]

The cover sheet questions add more coverage -- measured in terms of percentage points -- to children in groups with low rates of coverage than to groups with high rates of coverage. The cover sheet questions decrease the estimate percentage uninsured among children with self-employed parents by 7 percentage points, and decrease the estimated percentage uninsured among children with parents in firms of 1-24 employees by 8.7 percentage points, but decrease the estimated

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1 This table excludes children who did not live with their parents and children whose parents were not in the labor force.

2 The cover sheet questions were analyzed as described in Appendix A: children who were covered by private insurance from inside the household on the cover sheet but whose parents were uninsured were counted as uninsured.

TABLE C-1

Effects of Cover Sheet Questions on the Estimated Percentage of Uninsured 10-14 Year Olds, by Firm Size of Parents Employer, 1987-88

Firm Size of Parent's Employer [b]	(1) Page 15 Insured	(2) Page 15 Uninsured	(3) Coverage Added by Cover Sheet [a]	(4) Net Uninsured (2) - (3)	(5) % of Page 15 Uninsured Assigned Insurance by Cover Sheet (2)/(3)
Self-Employed [c]	64.4%	35.6%	7.0%	28.9%	.194
1-24	65.5%	35.5%	8.7%	25.8%	.252
25-99	76.1%	23.9%	7.1%	16.8%	.298
100-499	85.5%	14.5%	4.4%	10.2%	.300
500-999	88.7%	11.3%	4.6%	6.7%	.407
1000+	91.5%	8.5%	3.7%	4.8%	.438
Total:	82.0%	18.0%	5.4%	12.6%	.299

Source: March, 1988 and March, 1989 CPS

a) Children are counted as insured if coverage is indicated either on the 'cover sheet' questions or the 'page 15' questions, except that those with private insurance from inside the household on the cover sheet and whose parents are uninsured are counted as uninsured. See Appendix A for details. Table combines data from the 1988 and 1989 CPS samples.

b) Firm size of the head of household, unless the spouse has employer based or non-group insurance in his/her own name, and the head does not have insurance in his/her own name. Excludes adolescents not living with at least one parent, adolescents who are married, and adolescents who live with non-working parents.

c) Includes only unincorporated self-employed persons. Such persons are included as self employed regardless of the firm size in which they work.

percentage uninsured by 'only' 3.7 percentage points among children with parents in firms of 1000 or more workers.

However, as a percentage of the page 15 uninsured, the cover sheet questions add more coverage in the high coverage groups. Among all page 15 uninsured children with parents in the labor force, the cover sheet questions add coverage for 30%. The cover sheet questions add coverage for 19% of page 15 uninsured children whose parents are self-employed, and add coverage for 44% of page 15 uninsured children whose parents work for firms of 1000 or more workers.

Unfortunately, a similar direct estimate of the effect of new question wording for 15-18 year olds, by firm size of parent's employer, is not possible. However, as was shown in Table A-1 of the preliminary report, the net effect of the new question wording on all 15-18 year olds was to increase estimated coverage by approximately 6.3 percentage points. The estimated coverage increase for 15-18 year olds whose parents were in the labor force is very close to the 5.4 percentage point estimate for 10-14 year olds. Although these estimates can not be made by firm size for 15-18 year olds, it makes sense to believe that they are similar to the effects for 10-14 year olds.

Adjusting the May/March 1983 Data

Responses to 'page 15' health insurance questions for 10-18 year old adolescents, by firm size of parent's employer in the merged May/March 1983 data are shown in the first column of Table C-2. What would these responses have been if the cover sheet questions had been asked for 10-14 year olds and if the new question wording for 15 year olds and over had been used in 1983?

TABLE C-2

Unadjusted and Adjusted Percentage Uninsured
Among 10-18 Year Olds from Merged May/March 1983 CPS

Firm Size of Parent's Employer [a]	Unadjusted % Uninsured	Adjusted % Uninsured [b]
Self-Employed [c]	31.0%	25.0%
1-24	24.8%	18.6%
25-99	17.0%	11.9%
100-499	13.3%	9.9%
500-999	12.5%	7.4%
1000+	9.8%	5.5%

Source: May/March merged 1983 CPS

a) Firm size of the head of household, unless the spouse has employer based or non-group insurance in his/her own name, and the head does not have insurance in his/her own name. Excludes adolescents not living with at least one parent, adolescents who are married, and adolescents who live with non-working parents.

b) Adjusted percentage uninsured is computed by multiplying the unadjusted percentage by the corresponding entry in column 5 of Table B-1, and subtracting the product from the unadjusted percentage uninsured.

c) Includes only unincorporated self-employed persons. Such persons are included as self employed regardless of the firm size in which they work.

There is no way of knowing for sure, but a reasonable inference is that the cover sheet responses and the new question wording would have discovered as much new coverage in 1983 as they did in 1988. That is, a reasonable inference is that the cover sheet questions and new question wording would have discovered coverage for 43.8% of page 15 uninsured adolescents whose parents worked in firms of 1000+ employees, for 19.4% of page 15 uninsured whose parents were self-employed, etc. Adjusted 1983 estimates, based on such an inference, are shown in column 2 of Table C-2.

Appendix D

Updated Tables From the Preliminary OTA Report

The following tables update the major tables in the preliminary report to reflect the final March, 1988 data and the March, 1989 data. In addition, a table on insurance status by state is included. With the exception of the changes noted in Appendix B, the methods used in producing these tables are identical to the methods used for the preliminary report. The cover sheet questions are treated as described in Appendix A: children for whom coverage is indicated either on page 15 or on the cover sheet are counted as insured, except for those children who are uninsured on page 15, are covered by private insurance from inside the household on the cover sheet, who live with one or both parents, and whose parent(s) are uninsured; these children are counted as uninsured.

Table 1a. -- Health Insurance Status of Adolescents, Age 10-18 By Family Income, 1987

Family income as a percent of the federal poverty level	Proportion of all adolescents at the specified poverty level	No Health insurance coverage	Insured: private and public			
			Private only	Medicaid only	Other	Total
less than 50 percent	8.1%	28.5%	16.7%	50.8%	4.0%	100.0%
50 to 99 percent	9.8	33.4	22.3	36.7	7.6	100.0
100 to 149 percent	9.8	30.3	50.0	11.2	8.5	100.0
150 to 199 percent	9.4	19.7	68.4	4.3	7.6	100.0
200 to 299 percent	19.7	10.8	80.6	1.8	6.8	100.0
300 percent and more	43.2	4.0	90.4	0.3	5.3	100.0

Source: March, 1988 CPS. See appendix for decisions made about assigning insurance coverage to children with apparently inconsistent information on insurance coverage.

Table 1b. -- Health Insurance Status of Adolescents, Age 10-18 By Family Income, 1988

Family income as a percent of the federal poverty level	Proportion of all adolescents at the specified poverty level	No Health insurance coverage	Insured: private and public			
			Private only	Medicaid only	Other	Total
less than 50 percent	7.8%	29.8%	13.7%	51.1%	5.3%	100.0%
50 to 99 percent	9.1	35.8	21.4	36.4	6.5	100.0
100 to 149 percent	9.8	30.9	47.9	13.3	7.9	100.0
150 to 199 percent	9.7	19.8	68.6	5.0	6.6	100.0
200 to 299 percent	20.1	11.9	79.4	1.2	7.4	100.0
300 percent and more	43.4	4.6	89.4	0.6	5.4	100.0

Source: March, 1989 CPS. See appendix for decisions made about assigning insurance coverage to children with apparently inconsistent information on insurance coverage.

Table 3a. -- Family Income, Race and Ethnicity, and Health Insurance Status of Adolescents, Age 10-18, 1987

Family Income	Race/ethnicity	No Health Insurance coverage	Insured: Private and Public: Private only	Medicaid only	Other
less than	white, n.h.	28.8%	41.8%	21.3%	8.2%
	black, n.h.	27.2	20.8	44.9	7.2
150%	hispanic	43.5	19.4	34.5	2.6
	asian, n.h.	16.5	28.8	46.3	8.4
	native am.	39.6	21.8	29.4	9.2
	white, n.h.	12.0	80.2	1.7	6.2
150 to	black, n.h.	14.8	69.0	5.4	10.8
299%	hispanic	24.6	64.0	5.4	6.0
	asian, n.h.	14.5	66.4	4.4	14.8
	native am.	18.0	76.4	0	5.5
more than	white, n.h.	3.2	91.8	0.2	4.9
	black, n.h.	8.7	81.0	1.8	8.5
300%	hispanic	10.0	83.9	0.8	5.3
	asian, n.h.	6.6	85.1	0	8.2
	native am.	11.2	65.6	0	23.2

Source: March, 1988 CPS. See appendix for decisions on assigning coverage to children with apparently inconsistent coverage information. Table excludes 49,900 adolescents with race coded as 'other'.

Table 3b. -- Family Income, Race and Ethnicity, and Health Insurance Status of Adolescents, Age 10-18, 1988

Family Income	Race/ethnicity	No Health Insurance coverage	Insured: Private and Public: Private only	Medicaid only	Other
less than	white, n.h.	30.6%	39.0%	22.3%	8.2%
	black, n.h.	26.1	21.6	46.3	6.1
150%	hispanic	46.4	18.2	31.1	4.3
	asian, n.h.	29.4	25.3	40.9	4.4
	native am.	38.5	11.9	41.8	7.8
	white, n.h.	12.4	79.7	1.5	6.4
150 to	black, n.h.	14.2	69.0	5.7	11.2
299%	hispanic	25.5	63.8	3.9	6.8
	asian, n.h.	29.0	59.7	3.3	8.0
	native am.	11.2	74.4	2.6	11.8
more than	white, n.h.	4.0	90.9	0.2	4.9
	black, n.h.	7.2	79.2	3.7	9.9
300%	hispanic	12.7	81.2	2.3	3.8
	asian, n.h.	4.0	86.2	0.3	9.5
	native am.	18.4	62.8	1.0	17.8

Source: March, 1989 CPS. See appendix for decisions on assigning coverage to children with apparently inconsistent coverage information. Table excludes 50,000 adolescents with race coded as 'other'.

Figure 4a data: Poverty Status of Adolescents, Age 10-18, by Race/Ethnicity, 1987

Race/Ethnicity	< 150%	150-300%	300%+	column total
White, not hispanic	18.2%	29.9%	51.9%	70.9%
Black, not hispanic	54.3	25.5	20.2	15.4
Hispanic	52.8	29.0	18.2	10.0
Asian, not hispanic	28.2	28.2	43.5	3.0
Native Amer., n.h.	50.9	30.8	18.4	0.7
Other	17.7	34.6	47.7	0.1

Table 4a -- Adolescent's Living Arrangement by Family Income, 1987

Family income as a percentage of poverty	Living Arrangement	Proportion of Adolescents
< 150%	living with both parents	16.0%
	living with father only	21.9
	living with mother only	57.4
	not living with parent	61.2
150-299%	living with both parents	30.7%
	living with father only	29.0
	living with mother only	26.0
	not living with parent	22.4
300% and above	living with both parents	53.3%
	living with father only	49.1
	living with mother only	16.7
	not living with parent	16.4

Source: March, 1988 CPS.

Table 4b -- Adolescent's Living Arrangement by Family Income, 1988

Family income as a percentage of poverty	Living Arrangement	Proportion of Adolescents
< 150%	living with both parents	15.0%
	living with father only	25.9
	living with mother only	57.0
	not living with parent	57.6
150-299%	living with both parents	30.8%
	living with father only	33.7
	living with mother only	27.6
	not living with parent	23.6
300% and above	living with both parents	54.1%
	living with father only	40.4
	living with mother only	15.4
	not living with parent	18.8

Source: March, 1989 CPS.

Table 5a -- Family Income, Living Arrangement, and Health Insurance Status of Adolescents, Age 10-18, 1987

Family Income	living arrangment	No Health Insurance coverage	Insured: Private and Public Private only	Medicaid only	Other
< 150%	both parents	34.2%	40.8%	17.3%	7.8%
	father only	38.2	33.1	24.5	4.3
	mother only	22.8	22.8	47.5	6.9
	no parent	45.6	24.8	25.2	4.4
150-299%	both parents	11.3	79.9	1.4	7.4
	father only	20.7	68.5	1.5	9.3
	mother only	15.3	73.4	5.9	5.5
	no parent	39.4	45.2	9.3	6.2
> 300%	both parents	2.7	91.7	0.1	5.5
	father only	6.8	85.4	0.0	7.7
	mother only	6.5	89.3	1.0	3.3
	no parent	37.1	54.0	5.3	3.7

Source: March, 1988 CPS. See appendix for decisions on assignment of insurance coverage to children with apparently inconsistent information.

Table 5b -- Family Income, Living Arrangement, and Health Insurance Status of Adolescents, Age 10-18, 1988

Family Income	living arrangment	No Health Insurance coverage	Insured: Private and Public Private only	Medicaid only	Other
< 150%	both parents	37.2%	39.4%	16.0%	7.4%
	father only	38.9	26.4	30.0	4.6
	mother only	22.1	21.8	49.0	7.1
	no parent	50.9	21.7	24.1	3.3
150-299%	both parents	11.7	79.0	1.6	7.8
	father only	22.4	64.5	4.2	8.9
	mother only	15.7	76.2	2.8	5.2
	no parent	46.8	36.3	12.0	5.0
> 300%	both parents	3.5	90.7	0.3	5.5
	father only	7.3	86.9	0.4	5.4
	mother only	6.9	86.7	1.3	5.2
	no parent	32.6	54.4	9.8	3.2

Source: March, 1989 CPS. See appendix for decisions on assignment of insurance coverage to children with apparently inconsistent information.

Table 6a -- Family Income, Education of Family Head, and Health Insurance Status of Adolescents, Age 10-18, 1987

Family Income	Education of Family Head	No Health Insurance coverage	Insured: Private and Public Private only	Medicaid only	Other
< 150%	< 9 years	34.7	17.6	43.6	4.1
	9-11 years	27.0	21.7	44.3	7.0
	high sch. grad	28.2	36.6	27.5	7.8
	some college	26.8	43.0	20.2	10.0
	college grad	17.2	59.8	12.4	10.6
	post graduate	16.6	63.6	10.4	9.4
150-299%	< 9 vears	27.5	59.6	5.9	7.0
	9-11 years	22.4	67.6	4.5	5.5
	high sch. grad	9.8	81.3	2.2	6.7
	some college	9.4	81.4	1.1	8.1
	college grad	9.3	80.5	0.8	9.4
	post graduate	10.2	82.9	0.7	6.2
300% and above	< 9 years	14.5	82.8	0.8	2.0
	9-11 years	7.7	83.5	1.2	7.5
	high sch. grad	3.6	91.7	0.1	4.6
	some college	2.7	90.3	0.2	6.9
	college grad	2.7	92.4	0.1	4.8
	post graduate	1.3	93.6	0.1	5.1

Source: March, 1988 CPS. See appendix for decisions concerning assignment of insurance to children with inconsistent information.

Table 6b -- Family Income, Education of Family Head, and Health Insurance Status of Adolescents, Age 10-18, 1988

Family Income	Education of Family Head	No Health Insurance coverage	Insured: Private and Public Private only	Medicaid only	Other
< 150%	< 9 years	37.3	18.3	39.8	4.7
	9-11 years	27.1	20.5	45.4	7.0
	high sch. grad	29.2	36.2	27.7	7.0
	some college	24.6	49.4	25.5	10.5
	college grad	29.1	34.5	25.6	10.9
	post graduate	28.6	59.9	8.4	3.1
150-299%	< 9 years	27.6	62.3	5.6	4.0
	9-11 years	23.3	65.6	4.4	6.8
	high sch. grad	12.0	79.5	1.6	7.0
	some college	8.6	80.8	1.0	9.6
	college grad	9.1	85.0	1.1	4.8
	post graduate	7.2	82.5	1.0	9.3
300% and above	< 9 years	9.0	81.6	2.3	7.2
	9-11 years	7.7	84.4	0.8	7.1
	high sch. grad	4.5	90.6	0.6	4.3
	some college	4.2	88.7	0.1	7.1
	college grad	4.0	91.6	0.3	4.1
	post graduate	1.2	92.5	0.2	6.1

Source: March, 1989 CPS. See appendix for decisions concerning assignment of insurance to children with inconsistent information.

of Adolescents, Age 10-18, 1987

Family income as a percentage of of poverty[a]	Parental characteristics[b]	Total[c]	No health insurance coverage	Insured: private and public		
				Private only	Medicaid only	Other[d]
	Parental work status:[e,f]					
less than 150 percent	full-year, full-time	100.0%	31.7%	58.4	5.4	4.5
	full-year, part-time	100.0	40.9	26.6	25.7	6.9
	part-year	100.0	35.0	28.7	27.9	8.5
	nonworker	100.0	19.2	9.4	65.2	6.2
150 to 299 percent	full-year, full-time	100.0	10.9	84.5	0.7	3.8
	full-year, part-time	100.0	15.1	76.3	2.2	6.4
	part-year	100.0	17.3	69.6	4.4	8.6
	nonworker	100.0	23.7	41.3	18.6	16.3
300 percent and above	full-year, full-time	100.0	2.7	93.5	0.1	3.7
	full-year, part-time	100.0	4.2	94.3	0	1.6
	part-year	100.0	7.3	84.8	1.0	6.9
	nonworker	100.0	13.0	59.4	2.6	25.0
	Industry of family head:[e]					
less than 150 percent	public administration	100.0	20.5	62.7	9.6	7.2
	durable goods	100.0	25.0	56.4	12.4	6.1
	transportation	100.0	40.5	41.0	12.4	6.1
	mining	100.0	42.7	49.0	7.3	0
	nondurable goods	100.0	30.0	52.2	12.7	6.3
	finance	100.0	32.4	55.8	7.2	4.0
	wholesale trade	100.0	42.4	34.0	20.3	2.7
	professional services	100.0	26.8	51.2	14.7	7.7
	construction	100.0	52.0	25.2	19.5	13.2
	retail trade	100.0	34.7	31.8	17.6	16.9
	business services	100.0	33.3	33.5	28.9	4.2
	entertainment	100.0	43.5	44.3	8.9	3.3
	agriculture	100.0	42.8	43.0	10.5	2.5
	personal services	100.0	37.3	24.2	24.3	4.2
	nonworker/other	100.0	21.8	10.0	60.2	8.1
150 to 299 percent	public administration	100.0	1.0	90.6	0.6	7.8
	durable goods	100.0	8.8	85.9	1.4	3.9
	transportation	100.0	9.4	82.7	0.9	7.0
	mining	100.0	1.7	94.9	0.0	3.4
	nondurable goods	100.0	11.1	83.3	[illegible]	4.7
	finance	100.0	13.4	84.3	[illegible]	2.0
	wholesale trade	100.0	10.8	84.0	0.2	5.0
	professional services	100.0	10.9	83.4	2.2	3.6
	construction	100.0	28.3	64.1	2.3	5.4
	retail trade	100.0	16.5	75.1	4.0	4.4
	business services	100.0	22.8	68.7	2.0	6.5
	entertainment	100.0	11.4	74.2	2.3	12.1
	agriculture	100.0	27.1	67.2	0.8	4.9
	personal services	100.0	27.2	63.7	4.0	5.0
	nonworker/other	100.0	19.2	31.6	14.2	36.0

Table 7.[a]--Family Income, Selected Parental Characteristics, and Health Insurance Status of Adolescents, Age 10-18, 1987 (Cont'd)

Family income as a percentage of of poverty[a]	Parental characteristics[b]	Total[c]	No health insurance coverage	Insured: private and public		
				Private only	Medicaid only	other[d]
300 percent and above	public administration	100.0	2.0	87.3	0	10.6
	durable goods	100.0	2.5	94.5	0	3.0
	transportation	100.0	3.2	92.0	0.1	4.6
	mining	100.0	0.9	96.4	0	2.8
	nondurable goods	100.0	3.5	95.0	0	1.6
	finance	100.0	3.6	94.0	0	2.4
	wholesale trade	100.0	2.7	94.8	0	2.5
	professional services	100.0	3.4	93.5	0.4	2.7
	construction	100.0	9.0	85.7	0	5.3
	retail trade	100.0	5.0	89.6	1.8	3.6
	business services	100.0	4.8	86.2	0.3	8.7
	entertainment	100.0	1.5	96.5	0	2.0
	agriculture	100.0	9.1	89.2	0	1.7
	personal services	100.0	15.6	79.5	0	5.0
	nonworker/other	100.0	10.8	29.2	1.5	58.5
	Parent self-employed:[e]					
less than 150 percent	self-employed	100.0%	39.2	45.3	10.3	5.2
	not self-employed	100.0	32.4	42.4	17.0	8.1
	non worker	100.0	19.4	9.4	65.0	6.2
150 to 299 percent	self-employed	100.0	32.5	61.3	1.0	4.8
	not self-employed	100.0	10.2	81.4	1.5	6.8
	non worker	100.0	23.2	42.6	19.2	15.9
300 percent and above	self-employed	100.0	11.2	84.9	0	3.9
	not self-employed	100.0	2.4	92.2	0.2	5.2
	non worker	100.0	17.0	58.6	2.3	22.1

37, the Federal poverty level was $9,056 for a family of three.
cteristics are of household head unless only the spouse had employment-based health coverage.
ntages may not total 100 percent due to rounding.
des adolescents with CHAMPUS, Medicare, or any combination of public and private coverage.
des only unmarried adolescents living with their parents.
ear, full-time refers to workers who worked for at least 35 hours per week for at least 50 weeks.
ear, part-time refers to workers who were employed for at least 50 weeks and worked less than 35 hours i
cal week. Part-year workers worked or sought work during the year, but for less than 50 weeks during t
Nonworkers neither worked nor sought work during 1987.

: Office of Technology Assessment, 1989, based on estimates from the March 1988 Current Population Surve

Family income as percentage of poverty[a]	Parental characteristics[b]	Total[c]	No health insurance coverage	Insured: private and public		
				Private only	Medicaid only	Other[d]
	Parental work status:[e,f]					
Less than 100 percent	full-year, full-time	100.0%	34.2	54.4	6.3	5.1
	full-year, part-time	100.0	42.9	31.4	18.4	7.4
	part-year	100.0	33.9	25.8	33.7	6.6
	nonworker	100.0	19.0	8.4	64.6	8.0
100 to 149 percent	full-year, full-time	100.0	10.3	84.7	0.6	4.3
	full-year, part-time	100.0	27.1	66.2	0.7	6.0
	part-year	100.0	21.1	65.6	4.1	9.2
	nonworker	100.0	26.8	36.5	19.5	17.2
150 percent and above	full-year, full-time	100.0	3.4	92.4	0.2	3.9
	full-year, part-time	100.0	8.4	88.4	0	3.3
	part-year	100.0	8.5	81.3	0.7	9.5
	nonworker	100.0	9.9	65.0	9.0	16.1
	Industry of family head:[g]					
Less than 150 percent	public administration	100.0	23.5	48.7	24.4	3.4
	durable goods	100.0	15.6	71.1	10.6	2.6
	transportation	100.0	32.3	39.8	14.9	13.0
	mining	100.0	34.0	38.3	21.0	6.7
	nondurable goods	100.0	30.7	41.5	20.7	7.1
	finance	100.0	24.2	57.1	10.4	8.3
	wholesale trade	100.0	31.0	38.4	28.2	2.4
	professional services	100.0	27.4	42.8	22.4	7.4
	construction	100.0	57.1	24.9	13.8	4.2
	retail trade	100.0	33.9	36.5	19.6	4.9
	business services	100.0	38.8	33.1	23.1	5.0
	entertainment	100.0	44.8	27.7	15.1	12.5
	agriculture	100.0	43.1	38.7	14.5	3.8
	personal services	100.0	40.4	28.1	22.3	9.2
	nonworker/other	100.0	18.6	8.3	63.5	9.6
150 to 199 percent	public administration	100.0	5.4	85.2	0.8	8.6
	durable goods	100.0	5.7	89.8	0.2	4.4
	transportation	100.0	8.7	84.8	0.7	5.9
	mining	100.0	9.4	89.1	0.0	1.5
	nondurable goods	100.0	11.3	84.2	2.2	2.3
	finance	100.0	12.7	83.8	0.0	3.5
	wholesale trade	100.0	10.0	87.9	0.0	2.1
	professional services	100.0	8.7	82.9	1.2	7.2
	construction	100.0	26.2	66.7	0.8	6.4
	retail trade	100.0	13.6	76.9	1.7	2.3
	business services	100.0	17.6	71.5	2.8	3.0
	entertainment	100.0	10.8	89.2	0.0	0.0
	agriculture	100.0	22.7	69.0	2.7	6.6
	personal services	100.0	29.9	57.2	6.5	6.4
	nonworker/other	100.0	19.8	25.6	13.7	41.9

e 7.--Family Income, Selected Parental Characteristics, and Health Insurance Status of Adolescents, Age 10-18, 1988 (Cont'd)

ly income as rcentage of poverty[a]	Parental characteristics[b]	Total[c]	No health insurance coverage	Insured: private and public		
				Private only	Medicaid only	other[d]
percent	public administration	100.0	1.7	89.1	0.2	9.0
above	durable goods	100.0	3.4	92.7	0.1	3.8
	transportation	100.0	1.9	93.1	0.6	4.4
	mining	100.0	4.4	94.5	0.0	1.1
	nondurable goods	100.0	2.8	94.4	0.2	2.5
	finance	100.0	3.8	93.7	0.3	2.3
	wholesale trade	100.0	3.1	94.8	0.0	2.2
	professional services	100.0	3.0	93.5	0.0	3.5
	construction	100.0	7.0	88.2	0.2	4.6
	retail trade	100.0	5.8	87.5	0.9	5.8
	business services	100.0	4.9	85.6	0.1	9.3
	entertainment	100.0	38.3	58.6	0.0	3.1
	agriculture	100.0	11.9	86.6	0.0	1.5
	personal services	100.0	17.0	74.1	0.0	8.9
	nonworker/other	100.0	5.4	35.1	5.6	53.8
	Parent self-employed:[e]					
s than	self-employed	100.0%	42.6	41.4	9.9	6.1
percent	not self-employed	100.0	33.3	40.1	19.8	6.9
	non worker	100.0	19.2	8.5	64.4	7.9
0 to	self-employed	100.0	28.9	65.8	0.9	4.4
percent	not self-employed	100.0	10.6	81.1	1.2	7.1
	non worker	100.0	26.6	37.0	19.3	17.1
percent	self-employed	100.0	13.8	79.2	0.9	6.1
above	not self-employed	100.0	3.2	91.3	0.2	5.3
	non worker	100.0	9.6	66.2	8.6	15.5

the Federal poverty level was $9,056 for a family of three.
istics are of household head unless only the spouse had employment-based health coverage.
es may not total 100 percent due to rounding.
adolescents with CHAMPUS, Medicare, or any combination of public and private coverage.
only unmarried adolescents living with their parents.
, full-time refers to workers who worked for at least 35 hours per week for at least 50 weeks.
, part-time refers to workers who were employed for at least 50 weeks and worked less than 35 hours
week. Part-year workers worked or sought work during the year, but for less than 50 weeks during
workers neither worked nor sought work during 1987.

ffice of Technology Assessment, 1989, based on estimates from the March 1988 Current Population Surve

'able 8.--Region and Adolescent Health Insurance Status, 1987

on[a]	Total	No health insurance coverage	Insured: private and public		
			Private only	Medicaid only	Other[b]
heast[c]	100.0%	8.4	77.0	10.0	4.6
est[c]	100.0	8.4	76.4	10.5	4.7
h	100.0	19.4	63.5	9.5	7.6
	100.0	17.8	66.1	8.7	7.3

Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont.
Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.
Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.
Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

s with CHAMPUS, Medicare, or any combination of public and private coverage.
ast and Midwest are combined and referred to as North.

Technology Assessment, 1989, based on estimates from the March 1988 Current Popu-
ey.

Table 8[b]--Region and Adolescent Health Insurance Status, 1989[8]

gion[a]	Total	No health insurance coverage	Insured: private and public		
			Private only	Medicaid only	Other[b]
ortheast[c]	100.0%	9.7	74.2	11.0	5.1
idwest[c]	100.0	8.9	77.4	8.8	4.8
outh	100.0	20.8	62.8	9.1	7.3
est	100.0	17.3	65.2	10.3	7.2

es: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont.
: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.
Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.
Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

ents with CHAMPUS, Medicare, or any combination of public and private coverage.
heast and Midwest are combined and referred to as North.

f Technology Assessment, 1989, based on estimates from the March 1988[9] Current Popu-urvey.

Table 9.--Health Insurance Status of Adolescents, Age 10-18, by Region and Family Income, 1987

Family income as a percentage of poverty[b]	Region[c]	Total population, age 10-18 (in millions)	Percent of the region's adolescents[d]	Total[e]	No health insurance coverage	Insured: private and public[a] Private only	Medicaid only	Other[f]
less than 50 percent	North	1.09	7.4%	100%	18.1	17.5	60.5	3.8
	South	1.14	10.2	100	33.4	14.4	48.1	4.1
	West	0.37	6.0	100	41.4	21.6	33.0	4.0
50 to 99 percent	North	1.08	8.0	100	17.2	25.4	49.4	7.9
	South	1.25	11.1	100	47.4	19.6	26.3	6.7
	West	0.69	11.1	100	33.2	22.4	35.8	8.6
100 to 149 percent	North	1.21	8.7	100	20.4	57.4	12.7	9.6
	South	1.17	10.5	100	39.5	44.8	8.4	7.3
	West	0.67	10.8	100	32.1	20.1	26.2	22.5
150 to 199 percent	North	1.16	8.6	100	12.4	77.9	4.7	4.9
	South	1.13	10.1	100	22.7	64.9	2.7	9.6
	West	0.62	10.0	100	28.1	56.9	5.9	9.2
200 to 299 percent	North	2.77	20.4	100	7.2	86.4	1.3	5.1
	South	2.11	18.8	100	12.7	77.1	1.6	8.6
	West	1.21	19.5	100	15.8	73.6	3.3	7.3
300 percent and above	North	6.32	46.7	100	7.8	94.0	0.1	3.1
	South	4.40	39.2	100	4.8	86.9	0.5	7.8
	West	2.65	42.6	101	5.4	87.7	0.3	6.7

[a] ~~Health insurance status for 10- to 14-year olds has been adjusted~~. See appendix A for details.

[b] In 1987, the Federal poverty level was $9,056 for a family of three.

[c] North includes: Connecticut, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, North Dakota, Nebraska, Ohio, Pennsylvania, Rhode Island, South Dakota, Vermont, Wisconsin.

South includes: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

West includes: Alaska, Arizona, California, Colorado, Idaho, Hawaii, Montana, New Mexico, Oregon, Nevada, Utah, Washington, and Wyoming.

[d] Percentages refer to the proportion of adolescents in the indicated region who have family income as shown--e.g., 7.4 percent of adolescents in the North live in families whose income is less than 50 percent of the poverty level.

[e] Percentages may not total 100 percent due to rounding.

[f] Includes adolescents with CHAMPUS, Medicare, or any combination of public and private coverage.

SOURCE: Office of Technology Assessment, 1989, based on estimates from the March 1988 Current Population Survey.

Table 9.[b]--Health Insurance Status of Adolescents, Age 10-18, by Region and Family Income, 1987[a]

Family income as a percentage of poverty[b]	Region[c]	Total population, age 10-18 (in millions)	Percent of the region's adolescents[d]	Total[e]	No health insurance coverage	Insured: private and public[a] Private only	Medicaid only	Other[f]
less than 50 percent	North	0.85	6.2%	100%	21.1	67.1	57.9	4.0
	South	1.13	10.2	100	34.5	10.5	50.0	5.1
	West	0.44	7.2	100	34.8	15.6	41.2	8.3
50 to 99 percent	North	1.03	7.6	100	19.9	19.7	53.2	7.2
	South	1.21	11.0	100	50.0	20.5	23.4	6.1
	West	0.57	9.2	100	34.2	26.3	33.4	6.1
100 to 149 percent	North	1.24	9.1	100	21.5	56.9	13.0	8.6
	South	1.16	10.5	100	43.0	42.1	7.2	7.8
	West	0.62	10.0	100	27.1	40.9	25.2	6.8
150 to 199 percent	North	1.14	8.3	100	11.6	76.5	4.9	7.0
	South	1.13	10.3	100	24.4	65.6	2.9	7.1
	West	0.73	11.9	100	25.5	61.0	8.1	5.4
200 to 299 percent	North	2.81	20.6	100	9.0	84.8	1.0	5.3
	South	2.19	19.9	100	13.7	75.8	0.7	9.8
	West	1.19	19.3	100	15.7	73.6	2.6	8.2
300 percent and above	North	6.59	48.3	100	3.5	92.3	0.7	3.6
	South	4.18	38.0	100	5.2	87.4	0.5	6.9
	West	2.61	42.4	100	6.7	85.1	0.6	7.5

[a] ~~Health insurance status for 10- to 14-year-olds has been adjusted.~~ See appendix A for details.
[b] In 1987, the Federal poverty level was $9,056 for a family of three.
[c] North includes: Connecticut, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, North Dakota, Nebraska, Ohio, Pennsylvania, Rhode Island, South Dakota, Vermont, Wisconsin.
South includes: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.
West includes: Alaska, Arizona, California, Colorado, Idaho, Hawaii, Montana, New Mexico, Oregon, Nevada, Utah, Washington, and Wyoming.
[d] Percentages refer to the proportion of adolescents in the indicated region who have family income as shown--e.g., 7.8 percent of adolescents in the North live in families whose income is less than 50 percent of the poverty level.
[e] Percentages may not total 100 percent due to rounding.
[f] Includes adolescents with CHAMPUS, Medicare, or any combination of public and private coverage.

SOURCE: Office of Technology Assessment, 1989, based on estimates from the March 1988 Current Population Survey.

Table 16.--Potential Effect of Various Employer Mandates on Uninsured Adolescents by Living Arrangement and Parent's Work Status (in thousands)

Living arrangement/ parent's work status	Number covered by mandate on 30 hours per week employees[a]	Additional number covered by lowering mandate to 25 hours per week[a]	Additional number covered by lowering mandate to 18 hours per week[a]	Number not covered by 18 hours per week mandate	Totals
Living without parents	126	11	32	693	862
Parent is self-employed	7	2	15	432	455
Parent is not working	5	0	3	405	413
Parent working fewer than 26 weeks	4	0	3	229	236
Parent working 26 weeks or more	2,404	78	112	51	2,645
Total	2,546 (55.2%)	90 (2.0%)	165 (3.6%)	1,810 (39.3%)	4,611 (100.0%)

[a]Entries refer to the number of uninsured adolescents (in 1,000s) who would be covered by the employer mandate.

SOURCE: Office of Technology Assessment, 1989, based on estimates from the March 1988 Current Population Survey.

Table 17.--Potential Effect of a Medicaid Expansion on Uninsured Adolescents by Poverty Level and Living Arrangements (in thousands)

Medicaid eligibility level[a,b]	Estimated number (percent) of uninsured adolescents covered by the Medicaid expansion		
	Living arrangement		
	Living with one parent	Living with two parents or living alone	Total
Less than 50 percent of poverty	316 (7%)	405 (9%)	721 (16%)
50 to 99 percent of poverty	305 (7)	700 (15)	1,005 (22)
100 to 149 percent of poverty	292 (6)	639 (14)	931 (20)
150 to 199 percent of poverty	168 (4)	426 (9)	594 (13)
200 percent of poverty and above	384 (6)	1,077 (23)	1,361 (30)
Total number of uninsured adolescents covered under expansion	1,365	3,246	4,611
Overall proportion of uninsured adolescents covered by expansion	(30%)	(70%)	(100%)

[a]Entries are the proportion of currently uninsured adolescents who would be insured under the indicated level of Medicaid expansions.
[b]The Medicaid expansions assume that all adolescents in families with income below the specified amount would be covered by Medicaid.
SOURCE: Office of Technology Assessment, 1989, based on estimates from the March 1988 Current Population Survey.

Table 18.--Potential Effects of Various Combinations of Employer Mandates and Expansions in Medicaid on Uninsured Adolescents, Age 10-18

Medicaid eligibility level[a,c]	No employer mandate	Employees included in the mandate[a,b] (no. of hours worked weekly)		
		30 hours	25 hours	18 hours
No expansion	0%	55%	57%	61%
Anyone below 50% of poverty	16	68	69	72
Anyone below 100% of poverty	37	78	79	81
Anyone below 150% of poverty	57	86	87	88
Anyone below 200% of poverty	70	90	91	92

[a]Entries are the proportion of currently uninsured adolescents who would be insured under the indicated combination of an employer mandate and Medicaid expansion.
[b]The employer mandates assume that all workers excluding the self-employed (and their dependents), who work more than the indicated number of hours for at least 26 weeks during the preceding year, would be covered.
[c]The Medicaid expansions assume that all adolescents in families with income below the specified amount would be covered by Medicaid.
SOURCE: Office of Technology Assessment, 1989, based on estimates from the March 1988 Current Population Survey.

TABLE OF MSTSTATE BY INSURED

MSTSTATE INSURED

Row Pct	uninsure	private	medicaid	other
Maine	7.82	69.97	14.22	7.99
New Hampshire	10.60	81.70	1.63	6.06
Vermont	9.36	79.39	5.20	6.05
Massachusetts	6.92	77.16	10.49	5.43
Rhode Island	10.57	79.08	5.81	4.54
Connecticut	9.10	83.11	2.70	5.08
New York	10.31	68.82	15.41	5.47
New Jersey	8.73	81.55	6.83	2.89
Pennsylvania	8.16	78.61	8.67	4.56
Ohio	8.08	76.40	10.58	4.94
Indiana	14.61	77.37	3.63	4.40
Illinois	8.88	73.30	13.76	4.06
Michigan	5.97	74.61	12.27	7.15
Wisconsin	7.65	82.89	6.18	3.28
Minnesota	8.25	80.11	8.08	3.57
Iowa	7.41	83.26	7.25	2.08
Missouri	9.06	77.96	10.24	2.74
South Dakota	16.61	71.58	5.62	6.19
Nebraska	9.67	74.16	7.18	8.98
Kansas	7.56	80.31	4.77	7.36
Delaware	9.90	75.70	9.72	4.68
Maryland	7.47	75.79	8.68	8.06
D.C.	20.16	57.05	19.27	3.52

Virginia	10.95	67.71	7.25	14.09
West Virginia	20.55	58.75	13.67	7.03
North Carolina	17.99	69.05	6.54	6.43
South Carolina	15.67	68.04	8.87	7.42
Georgia	16.41	63.89	11.27	8.43
Florida	23.17	62.34	7.06	7.43
Kentucky	17.68	69.13	8.36	4.83
Tennessee	14.16	67.75	11.45	6.64
Alabama	22.44	61.43	9.21	6.92
Mississippi	22.24	55.85	13.98	7.93
Arkansas	21.78	61.15	11.24	5.83
Louisiana	24.63	50.58	20.26	4.53
Oklahoma	23.36	58.67	7.74	10.24
Texas	26.14	60.09	6.95	6.82
Montana	17.90	66.08	10.06	5.96
Idaho	13.76	75.68	4.99	5.57
Wyoming	12.75	77.06	3.96	6.23
Colorado	14.55	74.54	5.30	5.62
New Mexico	26.72	54.28	9.97	9.03
Arizona	22.64	66.55	4.35	6.45
Utah	10.90	79.65	5.28	4.17
Nevada	19.33	68.38	1.26	11.02
Washington	13.60	73.88	5.63	6.89
Oregon	12.75	76.17	5.71	5.37
California	19.17	60.61	12.82	7.39
Alaska	13.59	58.03	11.18	17.21
Hawaii	8.08	69.86	4.69	17.37

MEDICAID COVERAGE OF ADOLESCENTS

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EXECUTIVE SUMMARY

This paper examines Federal and State Medicaid eligibility and benefit policies affecting adolescents. We address the following questions:

- What are the estimated number and characteristics of poor adolescents covered by Medicaid?
- How do adolescents become eligible for Medicaid?
- What primary care, mental health, and substance abuse benefits are covered by states?
- What policy options exist for expanding Medicaid eligibility and benefits for poor and disabled adolescents?

Data for this report come from a 1989 survey of State Medicaid staff conducted by Fox Health Policy Consultants and McManus Health Policy, Inc. Data from the 1986 National Health Interview Survey are also used to estimate the size and characteristics of the low-income adolescent population with Medicaid coverage.

Since major Federal changes in the Medicaid program occurred after our survey was completed with the passage of the Omnibus Budget Reconciliation Act of 1989 (OBRA '89), we also describe and evaluate its impact on Medicaid benefits for adolescents throughout the report. A summary of OBRA '89 can be found in Table 1.

A. What are the Estimated Number and Characteristics of Poor Adolescents Covered by Medicaid?

Only 36 percent of adolescents, ages 10 to 18, in families with incomes below poverty were insured by Medicaid in 1986.

This left over three out of five poor adolescents without Medicaid coverage. In total, 3.3 million adolescents from impoverished families lacked Medicaid coverage in 1986. About one-half of this group had some other form of coverage, leaving 1.6 million poor adolescents with no coverage at all.

Adolescents most likely to have Medicaid coverage include the very poor, minorities, those whose parents have little education, those living in single-parent families, and those with significant health problems. Yet, only 40 percent of adolescents living in families with incomes below $5,000 were Medicaid insured in 1986. Moreover, only half of poor adolescents reported by their parents to be in fair or poor health or disabled by chronic illness were covered by Medicaid during this same period.

Significant geographic variation can be found in the percentage of poor adolescents with Medicaid coverage. Specifically, in 1986, only 29 percent of poor adolescents from the South had Medicaid coverage compared to 33 percent from the West, 39 percent from the Northeast, and 46 percent from the Midwest. Poor adolescents living in central cities were far more likely to have Medicaid coverage than poor adolescents residing in suburban and rural locales.

With Medicaid, poor adolescents used physician services more frequently than poor adolescents without any type of health insurance coverage coverage.

In the last decade, the majority of Medicaid expansions have been directed at pregnant women and children under eight. Adolescents, with the exception of pregnant adolescents, have not benefited from these expansions. We estimate that between 1.6-3.3 million adolescents could gain Medicaid coverage were the Congress to mandate coverage for adolescents living in families with incomes below the Federal poverty level.

B. **How Do Adolescents Become Eligible for Medicaid?**

Despite the numerous Federal statutory changes that have liberalized Medicaid income eligibility for children and pregnant women, access to Medicaid by adolescents primarily still involves meeting the financial criteria for States' Aid to Families with Dependent Children (AFDC or welfare cash assistance) programs. Such criteria vary considerably by State, but average $412 per month, less than half the Federal poverty level. Moreover, in 18 States adolescents who meet the financial criteria still may not qualify for benefits if they live in two-parent families; they must be in families where a parent is dead, incapacitated, or absent.

Other avenues to Medicaid eligibility for adolescents include the category of children in Federally subsidized foster care and adoption, under Title IV of the Social Security Act, and children who are disabled and receiving Supplemental Security Income (SSI or cash assistance) under Title XVI of the Social Security Act. All adolescents for whom payments are being made

under the foster care or adoption assistance program must be extended Medicaid coverage, but only at a State's option are Medicaid benefits provided to disabled adolescents receiving assistance under the Federal SSI program. Nine States (1) have elected to cover only adolescent SSI recipients who meet special State-established income, resource, or disability criteria, and one State (New Hampshire) does not cover adolescent recipients at all.

C. What Primary Care, Mental Health, and Substance Abuse Benefits Are Covered by States?

This report provides detailed State Medicaid coverage policies regarding primary care benefits and summary data on mental health and substance abuse benefits of relevance to adolescents from a 1989 survey of Medicaid program staff in all 50 States and the District of Columbia.

Primary care benefits of particular relevance to adolescents include the Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) Program, physicians' services, hospital outpatient services, nurse practitioners' services, school-based clinic services, and targeted case management.

EPSDT, Medicaid's program of scheduled preventive screening exams and follow-up treatment, is the most important primary care

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(1) These states are Hawaii, Indiana, Missouri, Nebraska, North Carolina, North Dakota, Ohio, Utah, and Virginia.

benefit available to adolescents covered by Medicaid (2). It not only has the potential to cover comprehensive preventive care but also to assure a vital link to a broad array of treatment services. Yet, most States lag behind in the development of schedules for preventive services that are consistent with medical and dental standards of care. In addition, States often fail to cover necessary diagnostic and treatment services for caring for health problems identified during an EPSDT screen.

As a result of the Omnibus Budget Reconciliation Act of 1989 (OBRA '89), Medicaid-insured adolescents, if they avail themselves of EPSDT screens, can obtain coverage for any Federally allowable service beginning on April 1, 1990, as along as the recommended treatment service is medically necessary to treat the condition identified during the screen. Most State Medicaid programs will be attempting to improve their EPSDT outreach methods, risk assessment screening tools, and schedules for preventive care as well as their referral and treatment systems to improve as well as to manage the use of EPSDT for both children and adolescents.

If State EPSDT services are designed to reflect the intent

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(2) EPSDT was enacted into law in 1967 "to discover, as early as possible the ills that handicap our children" as well as to provide "continuing follow-up and treatment so that handicaps do not go neglected."

of OBRA '89, existing State restrictions on primary care and mental health and substance abuse benefits can be lifted as long as they are allowable under federal Medicaid rules. Consequently, many of the benefit restrictions described below may no longer apply.

Physician and hospital outpatient services are typically well covered as primary care benefits under most State Medicaid programs. That is, few States impose significant limits on the use of these services. However, States may effectively limit the use of these services by offering low rates of reimbursement. Nurse practitioners and school-based clinics, on the other hand, are seldom covered by States.

In 1990, both EPSDT and nurse practitioners' services are likely to undergo significant expansions under State Medicaid programs. Briefly, under OBRA '89, States must cover services provided by independent pediatric and family nurse practitioners to the extent that they are legally recognized by State law to provide such services. Despite the fact that few State Medicaid programs cover school-based clinics as qualified clinic providers, greater coverage of Medicaid-insured adolescents in school-based clinics may occur as a result of coverage of nurse practitioners' services as long as states do not restrict the setting (i.e., schools) in which nurse practitioners can practice.

Medicaid benefits for treatment of mental health and substance abuse are less well covered than primary care services.

Short-term inpatient care (e.g., less than 30 days per year) is available in most States for treatment of mental health problems. However, inpatient care for substance abuse is often limited to detoxification only. Outpatient care for mental health is widely available, but it is often limited to short-term counseling (e.g., less than 45 visits per year). Moreover, the settings in which these services may be provided are often restricted (e.g., school setting). Outpatient care for substance treatment is less available.

D. What Policy Options Exist for Expanding Medicaid Eligibility and Benefits for Poor and Disabled Adolescents?

Since adolescents have been excluded from recent Medicaid expansions, there are several fundamental eligibility options to consider. Congress could mandate coverage of all children and adolescents, ages 6 to 21, in families with incomes up to 133 percent of the Federal poverty level. This would be consistent with OBRA '89's eligibility expansions for pregnant women and children under 6. Alternatively, Congress could consider different percentages of the Federal poverty level or different age cutoffs.

Medicaid benefits have dramatically expanded for children and adolescents as a result of OBRA '89. Significant attention will need to be devoted to increasing coverage for preventive care under EPSDT as well as for treatment of mental health, substance abuse, and other health problems identified during screens. All States, particularly those with restrictive manda-

tory and optional benefits, will need to re-examine their entire benefit structure for children and adolescents in accordance with OBRA '89.

At issue now, is not benefit expansions, but rather the adoption of comprehensive and efficient adolescent health care delivery systems. The choice of qualified providers and settings may now become more central to the State and local Medicaid policy debate. The design of provider networks that promote prevention and treatment of adolescent risk factors, morbidity, and mortality will be critical. This will involve developing close collaborative relationships among State Medicaid agencies, State Title V adolescent health coordinators, and health and mental health professionals engaged in adolescent health care delivery.

INTRODUCTION

This paper examines Federal and State Medicaid eligibility and benefit policies affecting adolescents. We address the following questions:

- What are the estimated number and characteristics of poor adolescents covered by Medicaid?
- How do adolescents become eligible for Medicaid?
- What primary care, mental health, and substance abuse benefits are covered by states?
- What policy options exist for expanding Medicaid eligibility and benefits for poor and disabled adolescents?

Chapter 1 presents background information on the number and characteristics of the low-income adolescent population with Medicaid coverage. Data for this analysis comes from the 1986 National Health Interview Survey (NHIS) of the National Center for Health Statistics. The NHIS represents an invaluable source of insurance information because the coverage data can be linked to health status and health services utilization data. More current information on insurance coverage was collected in the 1989 NHIS. However, these data will not be available until late 1990 or early 1991. We also include relevant findings from the Office of Technology Assessment's background paper, Adolescent Health Insurance Status, by Richard Kronick (OTA, 1989).

Chapters 2 - 4 review Federal and State Medicaid eligibility and benefit policies, including relevant OBRA '89 changes. We provide a detailed State-by-State analysis of selected primary

care benefits and a limited review of mental health and substance abuse benefits affecting adolescents, based on a 1989 telephone survey of State Medicaid agencies conducted by Fox Health Policy Consultants and McManus Health Policy, Inc. This State Medicaid survey included questions on the amount, duration and scope of a range of mandatory and optional benefits affecting children and adolescents. State Medicaid program staff with expertise in these benefit areas were interviewed during the spring of 1989. All data are current as of June 30, 1989, unless otherwise noted. Some States may have changed their benefits since that time. Reimbursement and administration policies were not addressed in this report.

Chapter 5 presents a summary of our findings and policy options for improving Medicaid eligibility and benefits for poor adolescents.

I. NUMBER AND CHARACTERISTICS OF POOR ADOLESCENTS COVERED BY MEDICAID

A. Trends in Medicaid Coverage

An estimated 2.6 million or 8.4 percent of adolescents ages 10 to 18 years had Medicaid coverage for all or part of 1986, according to data from the National Health Interview Survey. Almost all adolescents with Medicaid coverage lived in families with incomes below the Federal poverty level ($8,738 for a family of three in 1986). However, 64 percent of poor adolescents were still not covered by Medicaid in 1986. In total, over 3.3 million adolescents from poor families were without Medicaid coverage that year. Of the 3.3 million impoverished adolescents without Medicaid coverage, an estimated 1.6 million adolescents had some other type of health insurance coverage. However, it is not known how many adolescents in this latter group had coverage that was adequate to meet their health needs. Because poverty rates have remained relatively stable since 1986 and because Medicaid reforms enacted in the Congress since 1986 have been targeted primarily at younger children, there is little reason to suspect that significant changes have occurred in the number or proportion of poor adolescents with Medicaid coverage.

In the early 1980s significant changes did occur in the size of the adolescent population living in poverty. According to data assembled by the Office of Technology Assessment from the

Current Population Survey, the number of adolescents living in poverty increased substantially between 1979 and 1986, from 14.7 percent to 19.4 percent (OTA, 1989). During this period the proportion of adolescents with Medicaid coverage grew at a much slower rate. Specifically, while the proportion of adolescents living in families with incomes below poverty grew by 32 percent between 1979 and 1986, the proportion of adolescents covered by Medicaid increased by only 9 percent. State Medicaid programs largely failed to keep pace with the rapid growth in numbers of adolescents living in families with incomes below the poverty level. Indeed, during the early 1980s when poverty among adolescents was increasing at unprecedented rates, the proportion of adolescents covered by Medicaid hardly grew at all. It was only during the mid-1980s, when the poverty rate began to stabilize, that the proportion of adolescents covered by Medicaid began to increase.

B. Sociodemographic Characteristics of Adolescents Covered by Medicaid

Medicaid coverage for poor adolescents was far from uniform in 1986. Variation in coverage can be seen by age, family income and composition, race, and residence in Table 2. For example, younger adolescents (10 to 14 years) in poor families were about 60 percent more likely to be covered by Medicaid than older adolescents (15 to 18 years). While there was little difference in the proportions of males and females with Medicaid coverage, there was a high degree of variation with respect to

race and ethnicity. Specifically, blacks were far more likely than whites to have Medicaid coverage. Hispanic adolescents and adolescents from other racial and ethnic backgrounds were more likely than whites but less likely than blacks to have Medicaid coverage. These differences are at least partly attributable to other factors that are associated with race and ethnicity. For example, when statistical adjustments for family composition, family income, and area of residence are made (not shown), the racial and ethnic differences described above are greatly diminished. Hence, the increased likelihood of Medicaid coverage for minority adolescents appears to be largely attributable to their lower incomes, an increased likelihood of living in single-parent households, and other factors.

Very poor adolescents were more likely than other adolescents to have Medicaid coverage in 1986. Even so, a majority of adolescents from very poor families were not covered by Medicaid. Only 40 percent of adolescents from families with incomes below $5,000 had Medicaid coverage, while about one third of adolescents living in families with incomes between $5,000 and $10,000 annually were covered by Medicaid during the year of the survey. In contrast, only 15 percent of adolescents in families with incomes between $10,000 and $15,000 had Medicaid coverage and fewer than 3 percent of adolescents in families with incomes above $15,000 were covered by Medicaid in 1986.

Poor adolescents living in families with a single parent

were more than twice as likely to be covered by Medicaid as poor adolescents living in two-parent families. Much of the difference appears to be attributable to the higher incomes of two-parent families. When statistical adjustments for family income are made (not shown), the differential in Medicaid coverage between one-parent and two-parent families is significantly reduced.

Substantial geographic variation can be found in the proportion of poor adolescents with Medicaid coverage. Poor adolescents living in the South and West were far less likely to have Medicaid coverage than those living in the North and Midwest. Specifically, only 29 percent of poor adolescents in the South and 33 percent of poor adolescents in the Western United States had Medicaid coverage in 1986. In contrast, 46 percent of poor adolescents in the Midwest and 39 percent of poor adolescents in the Northeastern United States were covered by Medicaid. Differences were also apparent according to population density. Adolescents living in densely populated urban areas were far more likely to be covered than those living in the suburbs and rural areas. Specifically, while over four of every ten poor adolescents living in central cities had Medicaid coverage, only three of every ten poor adolescents living outside the central cities were covered by the Medicaid program in 1986. Hence, adolescents living in poor families in less populated areas, especially in the South and West, were at greatest risk of going without Medi-

caid coverage.

C. Health Characteristics of Adolescents Covered by Medicaid

An important dimension in evaluating whether Medicaid adequately serves adolescents is how well it targets poor adolescents with significant health problems. Data presented in Table 3 indicate that among poor adolescents, those reported in the worst health (3) were among those most likely to have Medicaid coverage. For example, adolescents living in impoverished families and reported by their parents to be only "fair" or "poor" health were nearly 50 percent more likely to be covered by Medicaid than their counterparts reported in "excellent" or "very good" health. Still, fewer than half of all adolescents from poor families reported in fair or poor health had Medicaid coverage in 1986. Data from the National Health Interview Survey indicate that as many as 70 thousand impoverished adolescents in fair or poor health were without any type of health insurance coverage in 1986.

Among poor adolescents, those reported by their parents to have chronic health problems that resulted in some level of long-term limitation of school, play, or work activities were about 40

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(3) Health status in this section is derived largely from parental responses for children and adolescents under 17. Almost two-thirds of adolescents and young adults, ages 17 and over, are self-respondents. The responses are subjective and are not corroborated by clinically based observations.

percent more likely to be covered by Medicaid than poor adolescents without limitations in their activities. Again, however, only a minority of poor adolescents with disabling chronic conditions had Medicaid coverage. Nationally, an estimated 120 thousand poor adolescents with limitations in their activities had no insurance coverage in 1986. Thus, while State Medicaid programs disproportionately cover those most in need, they still leave large numbers of needy adolescents without access to Medicaid-covered services.

Data in Table 4 show that Medicaid coverage is associated with more timely use of ambulatory care by adolescents from poor families. Specifically, 76 percent of poor adolescents with Medicaid coverage visited a physician within the past year compared to only 59 percent of poor adolescents without any type of insurance coverage. Poor adolescents without insurance coverage were nearly twice as likely to have waited two or more years since their last ambulatory care visit compared to poor adolescents with Medicaid coverage.

II. MEDICAID ELIGIBILITY CATEGORIES FOR ADOLESCENTS

A. Overview of Eligibility Categories and State Coverage of Adolescents

Adolescents qualify for Medicaid benefits either as categorically needy or medically needy recipients. The categorically needy include those for whom payments are being made under one of the Federal cash assistance programs: Aid to Families with Dependent Children (AFDC) (4), foster care and adoption assistance (5), and Supplemental Security Income (SSI) (6).

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(4) Children and adolescents under age 18 who live in a family in which one parent is dead, incapacitated, or absent, and who meet the income and resource standards specified in a State AFDC plan receive cash benefits under Title IV, Part A of the Social Security Act.

(5) Payments are made under Title IV, Part E of the Social Security Act, to subsidize the care of children and adolescents placed in family foster care or a child care institution who otherwise would be eligible for AFDC support. Payments also are made under Part E for children and adolescents who are adopted, have special needs, and meet the requirements for SSI assistance or would otherwise be eligible for AFDC support.

(6) The SSI program provides cash assistance to low-income persons who are aged, blind, or disabled under Title XVI of the Social Security Act. To receive benefits, an adolescent qualifying as disabled must be under the age of 18 and suffer from a physical or mental impairment that has lasted, or is expected to last, for a continuous period of 12 months and compares in severity to an impairment that would make an adult unable to engage in substantial gainful activity. In addition, parental income deemed available to the adolescent, after allowable family expense deductions, must not exceed an established monthly maximum.

Also included are certain optional groups that may be covered at a State's discretion.

The medically needy are those who meet the categorical criteria (e.g., one-parent family, foster care, disability) for one of the cash assistance programs, but do not qualify for the programs on the basis of income and resources. States that elect to cover the medically needy may establish income eligibility at an amount up to 133 1/3 percent of their AFDC payment level and provide others coverage if their medical expenses are high enough.

Although Congress in recent years significantly expanded Medicaid eligibility policy -- eliminating requirements to meet the categorical criteria of the cash assistance programs and setting higher mandatory and optional income eligibility thresholds -- none of its changes were targeted at adolescents (7). Only pregnant adolescents benefited from the eligibility expansions. As of April 1, 1990, States are required to cover pregnant women with incomes up to 133 percent of the Federal poverty level and will continue to have the option of covering those in

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(7) Various expansions of eligibility for pregnant women, and infants and children up to age eight were made in the consolidated Omnibus Budget Reconciliation Act of 1985, the Sixth Omnibus Budget Reconciliation Act of 1986, the Omnibus Budget Reconciliation Act of 1987, the Medicare Catastrophic Coverage Act of 1988, and the Omnibus Budget Reconciliation Act of 1989. None of the changes affected the eligibility of children over the age of eight, except for pregnant women.

families with incomes as high as 185 percent of poverty (8).

1. **Categorically Needy**

Most adolescents eligible for Medicaid benefits qualify because they are in families that receive AFDC cash assistance. These are families in which one parent is dead, incapacitated, or absent and that meet the States' income and resource criteria for AFDC assistance. These financial criteria vary considerably from State to State. Monthly income cut-offs for a family of three range from a high of $809 in Alaska to a low of $118 in Alabama, as shown in Table 5. The average Medicaid income eligibility standard is $412.

Another significant group of adolescents eligible for Medicaid are those in the 49 States (all but Arkansas and Wyoming) that have elected to extend categorically needy status to some or all of the children who meet the financial criteria for AFDC (9), but live in two-parent families or do not otherwise meet the definition of "dependent child" under the State's AFDC program. States may cover all "financially eligible" children up to age 18, 19, 20, and 21, or they may cover only certain groups of these children (such as those in subsidized foster care or

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(8) Omnibus Budget Reconciliation Act of 1989, Conference Report, November 26, 1989.

(9) The District of Columbia is included in State tallies throughout this paper.

adoption, facilities for the mentally retarded, or psychiatric institutions) up to age 18, 19, 20, or 21. Thirty-three of these 49 States have elected to cover all financially eligible children; 23 States cover children to age 21, one state to age 19, and nine states to age 18. The remaining 16 States have elected to cover only certain groups of financially eligible children and adolescents, as shown in Table 6.

Other groups of categorically needy adolescents are those in Federally subsidized foster care or adoption and those who are disabled and receiving SSI. With respect to children and adolescents in subsidized foster care and adoption, State Medicaid coverage is mandatory. Included are all those for whom payments are being made under the Federal foster care or adoption assistance program (10) -- those placed in a family foster home or child care institution who otherwise would be eligible for AFDC payments, and those adopted who have special needs and who either meet the requirements for SSI or otherwise would be eligible for AFDC.

With respect to disabled children and adolescents receiving SSI (11), State Medicaid coverage is essentially optional. Federal law permits States to select one of two Medicaid coverage options: they may make all SSI recipients eligible and, at their

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(10) Social Security Act, Title IV, Part E, secs. 470-479 (1989).

(11) Social Security Act, Title XVI, secs. 1601-1643 (1989).

discretion, also provide Medicaid benefits to individuals receiving only optional State supplementary payments; or they may limit Medicaid eligibility to individuals who meet categorical or financial requirements more restrictive than those established under SSI. The vast majority of States (42) cover all disabled adolescents who receive Federal SSI cash assistance. The remaining nine States do not (12): New Hampshire, in fact, does not cover SSI children and adolescents at all (Fox and Greaney, 1988).

2. **Medically Needy**

Finally, there are adolescents who are eligible for selected Medicaid benefits as medically needy recipients. States, at their option, may establish a medically needy program to permit Medicaid coverage of low-income individuals who meet the categorical -- but not the financial -- criteria for regular Medicaid eligibility. States are able to set medically needy income standards at levels up to 133 1/3 percent of the maximum AFDC assistance thresholds for families of the same size. Individuals with incomes above the medically needy standard also may become eligible if their medical expenses are high enough to reduce their countable income below the medically needy maximum.

Thirty-six States currently operate medically needy

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(12) These States are Hawaii, Indiana, Missouri, Nebraska, North Carolina, North Dakota, Ohio, Utah, and Virginia.

programs (13). For the most part, though, children and adolescents who regularly qualify as medically needy are in families with incomes only slightly above the AFDC cash assistance cutoff. Others may enter by "spending down", but their access to Medicaid usually is very erratic and may only be for a single accounting period (typically six months).

Compared to children under age six, adolescents have considerably less access to Medicaid benefits. The vast majority must meet the AFDC financial income eligibility criteria that are well below the Federal poverty level. All adolescents in two States and most adolescents in 16 States must meet AFDC categorical criteria relating to dependency as well. In the remaining 33 States, adolescents in two-parent families are eligible for coverage, but in nearly a third of the States only up to age 18.

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(13) These States are Arkansas, California, Connecticut, District of Columbia, Florida, Georgia, Hawaii, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Montana, Nebraska, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Oklahoma, Oregon, Pennsylvania, Rhode Island, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, and Wisconsin.

III. PRIMARY CARE BENEFITS AFFECTING ADOLESCENTS

A. Overview of Mandatory and Optional Benefits

States have wide discretion in designing their Medicaid benefits. Federal law establishes ten mandatory and over 30 optional Medicaid benefits, many of which are important for adolescents, as shown in Table 7. Those that States are required to offer under their Medicaid plans include inpatient and outpatient hospital services, laboratory and radiology services, physician services, nurse practitioner services, family planning services and supplies, and Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) services for persons under age 21.

Among the optional services, States may provide coverage for clinic services, physical therapy, occupational therapy, speech pathology and audiology, rehabilitative services, targeted case management, inpatient psychiatric services for persons under age 21, other licensed practitioner services (such as psychologists), and prescription drugs. Importantly, under OBRA '89, effective April 1, 1990, all Federally allowable diagnostic and treatment services become mandatory if found to be medically necessary for a child during an EPSDT health examination. This is required even if Medicaid coverage of the services is not otherwise available in the State.

Regardless of whether a service is mandatory or optional,

however, States are free within broad Federal guidelines to establish the amount, duration, and scope of services that they will cover. In addition, they may impose prior authorization requirements (14) or utilization control measures to ensure that services are medically necessary.

Once a State specifies its coverage policies in a State Medicaid plan, all services except case management services, those offered under a special home- and community-based services waiver, and EPSDT follow-up diagnostic and treatment services, must be available on a uniform basis to all recipients throughout the State and must be offered in equal amount, duration, and scope to all individuals eligible as categorically needy. States also must assure that coverage of a service is sufficient to reasonably achieve its purpose. (15)

Importantly, unlike the categorically needy, those who qualify for Medicaid as medically needy need not be provided the full benefit package specified in a State's plan. Medically needy children and adolescents, according to Federal law, are

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(14) A prior authorization requirement for a particular service means that the provider must obtain permission from the State Medicaid agency before furnishing the service, or reimbursement will be denied.

(15) The sufficiency standard, as implemented by HCFA, generally can be satisfied if a State is able to show that a particular benefit level meets the needs of approximately 90 percent of recipients who use the service and is not less that the average number of service units utilized by these recipients in the previous year.

required to receive only ambulatory services -- the interpretation of which is left to the States. All States, however, have elected to provide medically needy children and adolescents a benefit package that is the same, or nearly the same, as the one available to the categorically needy.

The following sections provide a detailed review of States' coverage of selected primary care benefits and a limited review of selected mental health and substance abuse benefits of relevance to adolescents. Excluded from this review of selected benefits, is an analysis of state Medicaid reimbursement and administration policies.

B. State Coverage of Primary Care Benefits

Primary care benefits of particular relevance to adolescents include the Early and Periodic Screening, Diagnosis and Treatment (EPSDT) Program, physician services, hospital outpatient services, nurse practitioners' services, school-based clinic services, and targeted case management.

1. The Early and Periodic Screening, Diagnosis, and Treatment Program (EPSDT)

The Early and Periodic Screening, Diagnosis, and Treatment Program (EPSDT) is a mandatory benefit and, as such, must be provided in all States to all Medicaid recipients under the age of 21, except for medically needy child recipients. With changes effective on April 1, 1990, EPSDT now represents the most comprehensive child and adolescent preventive care package currently available in any private or public financing plan. As

such, it is the most important primary care benefit available to adolescents covered by Medicaid because of its focus on prevention and its new authority to cover medically necessary treatment services.

States are required to provide the following services under EPDST screening services which meet reasonable standards of medical (16) and dental practice, including comprehensive health and developmental history, comprehensive unclothed physical exams, immunizations, lab tests, health education; vision services; dental services; hearing services; and other necessary health care, diagnostic services, and treatment to improve the physical and mental conditions identified during the screen.

Legislative changes under OBRA '89 will affect schedules for preventive visits in many states, the definition of who is qualified to be an EPSDT provider, and the range of diagnostic and treatment services offered to treat health problems discovered during to treat health problems discovered during screens. Ultimately, States will be required to provide coverage of all

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(16) The legislative history, as reported in the House Report of the Medicare and Medicaid Health Budget Reconciliation Amendments of 1989, clarified the periodic nature of EPSDT services and reasonable standards of medical practice: "The committee (Subcommittee on Health and the Environment) intends that these health examinations be provided at intervals that are no greater than those described for well-child care in the Guidelines for Health Services (1981) of the American Academy of Pediatrics.

Federally defined mandatory and optional benefits for Medicaid-insured adolescents, regardless of whether those services were previously included in the State's Medicaid plan, as long as the services are medically necessary for treating the condition(s) identified during an EPSDT screen.

In 1989, only 21 States' EPSDT periodicity schedules for children and adolescents ages 0-21 were consistent with the American Academy of Pediatrics' (AAP) recommendations for preventive pediatric health care. Excluding two newborn screening visits, the AAP calls for a total of 20 preventive visits for children and adolescents "who are receiving competent parenting, have no manifestations of any important health problems, and are growing and developing in satisfactory fashion" (AAP, 1987). Additional visits may be needed for children not meeting these criteria.

Table 8 displays States' periodicity schedules for adolescents, as of summer 1989. For adolescents, the AAP calls for a total of six preventive visits between the ages of 10-21. These visits would occur approximately every other year. The AAP, however, plans to reevaluate the frequency of preventive visits for all children, considering instead annual visits for adolescents in recognition of their increasing risk status.

Half of all States met or exceeded the AAP's recommendations of six visits during the course of adolescence. Of the 22 States whose EPSDT periodicity schedules met the AAP's recommendations, four States called for annual visits -- Maryland, North

Dakota, Ohio, and Washington. At the other extreme were the States of Idaho, Oklahoma, Texas, and Wyoming, with recommendations for only one or two preventive visits between ages 10-21. Under OBRA '89, these States will be required to revise their periodicity schedules to ensure that they are consistent with recognized medical standards.

States must also provide additional unscheduled screenings as medically necessary to detect physical or mental illness or conditions. For example, in the case of a ten year old who is beginning to experiment with drugs, the EPSDT screener now has the authority to call for additional screen(s) to detect and prevent potential drug abuse. If the EPSDT screener determines that care through a substance abuse treatment program is medically necessary for an adolescent and the benefit is not covered under the State's Medicaid plan, the State must now cover this benefit within Federal limits, if it is required for treating the condition and if it was detected during a screen. Previously, States were not required to provide additional screens or referral to a substance abuse treatment program since neither was a mandatory benefit.

The EPSDT screen for Medicaid-insured adolescents will take on increased importance since it allows for comprehensive risk assessment, further diagnosis and treatment as required, and health promotion and health education. The potential for providing comprehensive health services using EPSDT will not be fully

realized, however, if adolescent Medicaid recipients do not get screened. Given the tendency of low-income adolescents to delay seeking care -- as many as one-third of all poor adolescents had not seen a physician within the last year (Newacheck, 1988) -- States may need to undertake special efforts to encourage adolescents to visit their physicians more often for preventive care. Eleven States have already targeted adolescents for EPSDT outreach programs. These States are California, Colorado, Georgia, Illinois, Louisiana, Maryland, Michigan, Minnesota, New Mexico, Pennsylvania, and South Carolina.

2. **Physician Services**

Physician services are a mandatory benefit and must be provided by all States. The Health Care Financing Administration (HCFA) defines physician services as including those services which are within the scope of practice in a given State or under the personal supervision of an individual licensed to practice medicine or osteopathy. Physician services can be provided in a doctor's office, patient's home, hospital, or elsewhere (HCFA, 1989).

All States set some limits on services for which physicians can be reimbursed, as shown in Table 9. These can be limits on delivery sites where care can be provided, on the number of visits, on the need for prior authorization, and on the type of services to be covered (e.g., sterilization). Some 13 States set different limits on psychiatrists' services, as described below

under other benefits related to the treatment of mental health and substance abuse problems. Six more States limited the number of physician visits that can be reimbursed in a single day. Oregon permitted two visits per day and the remaining five States (Maryland, Massachusetts, Utah, Washington, West Virginia) allowed only one visit to a physician per day. A limit of one or two physician visits per day would rarely be a problem for most adolescents, especially for primary care services. These limits could, however, prevent an adolescent with complex health or mental health conditions from scheduling several specialty visits in a single day.

Eleven States set office visit limits on physician services. Nine of these States imposed annual limits ranging from 12 to 24 visits per year. Two States set monthly visit limits. Prior authorization was used by five other States (Georgia, Indiana, Maine, Nevada, Vermont) after a certain number of physician visits have been made.

Massachusetts is the only State that covers neither office staff nor other health practitioners supervised by a physician to be covered as physician services. Allowing office staff and/or other health practioners as a physician-supervices staff allows, for example, an adolescent's visit for a routine allergy shot given by a physician's nurse to be covered as a physician office visit. As many as 17 States excluded coverage of other more autonomous practitioners such as nurse practitioners, physician

assistants, and ancillary therapists under physician services. Almost half of the 49 States that covered physician-supervised services required that the physician be on the premises. Only six States required that the physician have direct contact with the patient to ensure Medicaid payment. The remaining States had other definitions of physician supervision. In almost three quarters of all States physician services were used to bill for non-office visit services otherwise not reimbursed (e.g., mental health visits in a hospital outpatient setting). Only five States restricted the setting (e.g., schools) in which physicians are authorized to deliver Medicaid-reimbursed services, as displayed in Table 9.

3. **Hospital Outpatient Services**

Hospital outpatient services, like inpatient services, are a mandatory Medicaid benefit. HCFA defines these services to include preventive, diagnostic, therapeutic, rehabilitative, or palliative services that are delivered by or under the direction of a physician or dentist to a hospital outpatient. Only eight States set overall limits on hospital outpatient services, as shown in Table 10. Thirteen States imposed separate limits for specific hospital outpatient services (e.g., more restrictive limits for mental health services, speech therapy, occupational therapy, and physical therapy). These states are Alaska, California, Colorado, Idaho, Kansas, New Hampshire, New Mexico, North Carolina, Ohio, Pennsylvania, Texas, Vermont and

West Virginia.

4. **Nurse Practitioners' Services**

Some nurse practitioners' services are now mandatory Medicaid benefits. OBRA '89 requires that, effective July 1, 1990, States must include in their Medicaid plans services provided by certified pediatric and family nurse practitioners, to the extent that they are legally authorized as independent practitioners in their own State. Prior to this change States were permitted, but not required, to cover nurse practitioners' services.

Only seven States (Florida, Idaho, Kansas, Montana, New Hampshire, Nevada, Washington) now cover nurse practitioners as independent practitioners under Medicaid. Only one of these States (New Hampshire) restricts the amount of nurse practitioners' services covered to 18 visits per year. One other State (Nevada) requires prior authorization for some nurse practitioner services (Fox, 1989).

Twenty-four other States explicitly recognize nurse practitioners, child health practitioners, family nurse practitioners, or school nurse practitioners in state law or regulations. These States will be required to modify their State Medicaid plans. The remaining States do not recognize nurse practitioners.

5. **School-Based Clinic Services**

Clinic services are an optional benefit under Medicaid. HCFA defines clinic services as preventive, diagnostic,

therapeutic, rehabilitative or palliative services provided to an outpatient by or under the direction of a physician in a facility that is not part of a hospital but that is organized to provide medical care to outpatients.

Clinic services are covered in every State except Mississippi, Rhode Island and Wisconsin. States have the authority to define the types of clinics that they will cover under this benefit, including school-based clinics, community mental health centers and substance abuse clinics. The latter two clinic categories are described in the next section on mental health and substance abuse benefits.

Only two States (Connecticut and Illinois) allowed school-based clinics to be authorized Medicaid clinic providers, but there are alternative ways that school-based clinics can bill Medicaid for services. School-based clinics in other States may receive Medicaid reimbursement even though they are not qualified clinics, as defined in the State Medicaid plan. This may occur when a school-based clinic is set up as a satellite to an outpatient hospital department or to another clinic, such as a rural health clinic or a community health center. School-based clinics may also receive Medicaid reimbursement through the qualified physicians or other practitioners', including nurse practitioners, who practice at the clinic, as long as the State does not restrict billing in a school setting.

6. Targeted Case Management

Targeted case management is an optional service, defined by HCFA to assist recipients in accessing necessary medical, social, educational, and other services. States are allowed to target the benefit to certain groups of individuals or geographic areas, as shown in Table 11.

Twenty-six States have made some use of this option, but only 17 States are targeting groups that would include adolescents. Three States have implemented coverage for case management services specifically for adolescents who are pregnant or already parents. Fifteen States cover case management services for groups that could include, but are not limited to, adolescents. Among these groups are: all children and adolescents at risk due to physical or mental disability, the mentally retarded or developmentally disabled, the physically disabled, HIV-infected persons, the mentally ill, and substance abusers.

IV. OTHER MEDICAID BENEFITS RELATED TO THE TREATMENT OF MENTAL HEALTH AND SUBSTANCE ABUSE PROBLEMS

Several Medicaid mandatory and optional benefits, in addition to the above primary care benefits, relate to the treatment of mental health and substance abuse problems. A detailed review of state coverage policies of each of these services will be available in an upcoming report to the Alcohol, Drug Abuse and Mental Health Administration (ADAMHA) by the authors (Fox et al, 1990).

A. State Coverage of Mental Health and Substance Abuse Benefits

The following summarizes some of the key findings in ADAMHA's report on selected mandatory and optional benefits related to mental health and substance abuse treatment for adolescents. In general, States are more restrictive regarding their coverage policies for substance abuse treatment than is the case for mental health treatment. In addition, Medicaid policies are more generous for inpatient versus outpatient mental health and substance abuse services.

1. Psychiatrists' Services

States typically treat psychiatrists' services differently from other physicians' services. For example, one fourth of all States impose more restrictive office visit limits. Almost half of all States exclude psychologists and clinical social workers from being covered under a psychiatrist's supervi-

sion. In contrast, only one third of States restrict nurse practitioners, physician assistants, and therapists from being covered under regular physicians' supervision.

2. Inpatient Mental Health and Substance Abuse Services in General and Psychiatric Hospitals

All States cover psychiatric inpatient services in a general hospital or psychiatric hospital. All but four States cover substance abuse treatment services in a general hospital inpatient setting. Yet, only 34 States cover substance abuse treatment in a psychiatric facility. States typically impose more restrictive limits on psychiatric and substance abuse treatment than with general medical services in an inpatient setting, through the use of day limits and prior authorization requirements. As many as two-thirds of all States covering substance abuse inpatient care restrict this benefit to detoxification only. Still, we found that psychiatric inpatient hospitalization is more generously covered than substance abuse hospitalization, particularly in general hospital settings.

3. Outpatient Mental Health and Substance Abuse Services in General and Psychiatric Hospitals

In 40 States, mental health visits are covered in a general hospital outpatient setting. In contrast, only 21 States cover outpatient mental health services in psychiatric hospitals. Substance abuse visits are covered in 30 States in a general hospital setting. When such visits are covered, States often impose visit or dollar limits and prior authorization requirements on

mental health and substance abuse outpatient visits. Few States restrict the type of mental health treatment that can be covered, such as individual therapy. However, approximately one third of the States covering substance abuse outpatient visits limit the types of services that will be covered.

As with inpatient hospital services, mental health outpatient services tend to be covered more often in general hospital settings than in psychiatric hospitals, and mental health outpatient services are more likely to be covered than substance abuse outpatient services.

4. Inpatient Psychiatric Facilities for Recipients Under 21

In addition to the inpatient hospital services described above, almost three-fourths of all States have taken the option to cover inpatient psychiatric facilities for children and adolescents under the age of 21. In only 10 States, however, can the type of facility be other than a psychiatric hospital accredited by the Joint Commission on the Accreditation of Health Care Organizations (JCAHO). These restrictions apply to coverage of residential treatment facilities, which are commonly used by adolescents receiving substance abuse treatment. Substance abuse treatment is covered in almost all States offering psychiatric facilities for individuals under 21, as either a primary or secondary diagnosis.

5. Partial Hospitalization

Only 18 States cover partial hospitalization.

This benefit has been defined by most States to cover primarily persons with psychiatric diagnoses, such as children and adolescents with severe emotional disturbances. In five States, treatment for substance abuse could be covered. Most States require a physician order for receipt of this benefit. In addition, day limits and prior authorization requirements are commonly used to restrict partial hospitalization.

6. **Other Licensed Practitioners, Including Psychologists and Clinical Social Workers**

Almost half of all State Medicaid programs reimburse psychologists as independent practitioners. States typically cover testing and evaluation as well as ongoing individual, group or family therapy. Also, States commonly impose dollar or visit limits, which range from 12 per year to 48 visits per year. In general, psychologists' services are not commonly covered in settings other than an office or clinic. Clinical social workers are reimbursed by Medicaid as independent practitioners only in Massachusetts and Montana.

7. **Clinic Services, Including Community and Private Mental Health Centers and Substance Abuse Clinics**

Thirty-eight States allow community mental health centers to bill as a clinic service, and 24 States allowed private mental health centers to be qualified clinic providers. In contrast, only 12 States cover drug or alcohol abuse clinics under the clinic category. Covered as benefits under community mental health centers and private mental health centers are

assessment/diagnosis and individual, group or family therapy, psychological testing, medication monitoring and crisis intervention. Again, States use prior authorization, restrictions on multiple billings per day, and visit or dollar limits as mechanisms to control use.

V. CONCLUSIONS AND POLICY OPTIONS TO EXPAND MEDICAID FOR ADOLESCENTS

The major findings of our study are that Federal Medicaid income eligibility policies leave many low-income adolescents without access to benefits and that, even for adolescents enrolled in Medicaid, benefits for some needed primary care, mental health, and substance abuse services frequently are limited or completely unavailable. This tends to be particularly true for nurse practitioners' services and school-based clinic services as well as for substance abuse treatment.

Improvements in Medicaid eligibility and benefit policies for adolescents require both Federal and State attention. Congress needs to revise the Medicaid statute to enable more low- and moderate-income adolescents to participate. State Medicaid programs need to redesign their benefit and provider policies if Medicaid enrollment for this population is to realize its full potential. While this report did not address reimbursement issues, sufficient evidence supports the need for States to also re-examine the adequacy of their pediatric provider reimbursement rates to assure access to needed health care services.

The income eligibility options available to Congress are numerous. In developing policies to increase access by adolescents, it could consider applying various percentages of the Federal poverty level and establishing different age cut-offs.

States could be mandated to liberalize their eligibility policies or simply be given the option to do so.

Considering the direction Congress has taken for children ages birth through six, setting mandatory income eligibility policy at 133 percent of poverty would appear to be equitable and rational. Children might be phased-in in three-or four-year clusters. This would give States a chance to deal with the OBRA '89 eligibility expansions, which for many States are significant.

Bringing more adolescents into the Medicaid program will have limited significance, however, unless State Medicaid coverage policies undergo considerable restructuring in accordance with new Federal EPSDT policies. Under OBRA '89, most States will need to improve their policies concerning preventive services. They will need to provide for a greater number of screening examinations during the adolescent period and also to permit providers capable of furnishing only some types of EPSDT screening examinations to participate. These providers might include those that are particularly important for adolescents, such as family planning clinic providers.

Most States also will need to greatly expand their coverage of diagnostic and treatment services found to be necessary as a result of a screen. This will require establishing medical necessity criteria and referral protocols for numerous services that many State Medicaid programs previously have left uncovered.

Such services presumably would include, for example, outpatient substance abuse treatment and crisis intervention.

Essentially, though, Medicaid continues to be primarily a financing mechanism. It can pay only for services that have been conceived, implemented, and viewed by the provider community as effective. In the field of adolescent health care, much program development still remains to be done.

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Table 1

Provisions of the Omnibus Budget Reconciliation Act of 1989
Affecting Medicaid Coverage of Adolescents

Eligibility Expansions

- Medicaid eligibility must be extended to all pregnant women and children up to age six with family incomes up to 133% of the Federal poverty level. States may also cover children up to age eight. Effective April 1, 1990.

Benefit Expansions

- State EPSDT screening schedules must meet reasonable standards of medical and dental practice and additional, unscheduled screenings must be permitted if medically necessary. Effective April 1, 1990.

- States must provide any Federally allowable Medicaid service required to treat a condition identified during an EPSDT screening even if the service is not covered in the state's Medicaid plan. Effective April 1, 1990.

- States must cover the services of certified pediatric and family nurse practitioners, to the extent that they are legally authorized to practice under State law or regulation. Effective July 1, 1990.

- States must cover services of federally qualified health centers (e.g., community and migrant health centers). Effective April 1, 1990.

Other Provisions

- State reimbursement rates for obstetrical and pediatric services must now be approved by the Secretary each year and must be adequate to assure Medicaid recipients access to care equal to access for the general population. July 1, 1990.

- HCFA will fund demonstration projects extending Medicaid or private health insurance coverage to pregnant women and children up to age 20.

- The Physician Payment Review Commission will study the adequacy of Medicaid physician reimbursement.

Table 2

Sociodemographic Characteristics of Medicaid-Insured Adolescents in Families with Incomes Below the Poverty Level: U.S., 1986*

Sociodemographic Characteristics	Percent With Medicaid Coverage
Age	
10 to 18 years	35.5 %
10 to 14 years	43.5
15 to 18 years	26.9
Gender	
Male	36.1
Female	34.9
Race and Ethnicity	
White, not Hispanic	25.8
Black, not Hispanic	49.6
Hispanic	31.2
Other	37.0
Family Income	
Less than $5,000	39.6
$5,000 to $9,999	36.3
$10,000 to $14,999	27.2
$15,000 or more	15.2
Education of Household Head	
Less than 9 years	39.8
9 to 11 years	47.8
12 years	27.4
11 to 15 years	33.2
16 years	36.6
17 years or more	0.0
Living Arrangement	
Living with both parents	22.7
Living with one parent	54.7
Living with other relatives	29.1
Living alone or with nonrelatives	0.8

Region	
Northeast	39.2
Midwest	46.1
South	29.3
West	32.7
Residence	
Metro-central city	43.5
Metro-not central city	27.7
NonMetro	30.8

Source: Microdata from the Health Insurance Supplement to the 1986 National Health Interview survey

* Excludes persons with unknown coverage status.

Table 3

Health Characteristics of Medicaid-Insured Adolescents Living in Families with Incomes Below the Poverty Level: U.S., 1986 *

Health Characteristics	Percent With Medicaid Coverage
Perceived Health Status **	
All	35.5
Excellent	35.2
Very Good	28.8
Good	38.8
Fair or Poor	48.9
Limitation of Activity	
All	35.5
Not Limited in activity	34.2
Limited in activity	48.2

Source: Microdata from the Health Insurance Supplement to the 1986 National Health Interview Survey

* Excludes persons with unknown coverage status.
** Excludes persons with unknown health status.

Table 4

Medical Care Use Characteristics of Medicaid-Insured and Uninsured Adolescents Living in Families with Incomes Below the Poverty Level: U.S., 1986 *

Medical Characteristics	Poor Adolescents With Medicaid Coverage	Poor Adolescents Without Insurance Coverage
Interval since last visit to a doctor		
Percent within last year	75.5	58.6
Percent between one and two years ago	12.1	18.7
Percent more than two years ago	12.4	22.7
Total	100.0	100.0
Hospitalization in last year		
Percent hospitalized one or more times	4.9	4.4
Percent not hospitalized	95.1	95.6
Total	100.0	100.0

Source: Microdata from the Health Insurance Supplement to the 1986 National Health Interview Survey

* Excludes persons with unknown coverage status.

Table 5

Medicaid Income Standards for Recipients Eligible Under the Aid to Families with Dependent Children (AFDC) Program

STATES	Current Medicaid Eligibility (AFDC Family of Three) *	Current Medicaid Eligibility as a Percent of Poverty **
Alabama	$ 118	14.1 %
Alaska	809	77.2
Arizona	293	35.0
Arkansas	204	24.3
California	663	79.1
Colorado	421	50.2
Connecticut	534	63.7
Delaware	333	39.7
D. of Columbia	393	46.9
Florida	287	34.2
Georgia	376	44.9
Hawaii	557	57.8
Idaho	304	36.3
Illinois	342	40.8
Indiana	288	34.4
Iowa	394	47.0
Kansas	401	47.8
Kentucky	218	26.0
Louisiana	190	22.7
Maine	632	75.4
Maryland	377	45.0
Massachusetts	579	69.1
Michigan	572	68.2
Minnesota	532	63.5
Mississippi	368	43.9
Missouri	285	34.0
Montana	359	42.8
Nebraska	364	43.4
Nevada	330	39.4
New Hampshire	496	59.2
New Jersey	424	50.6
New Mexico	264	31.5
New York	539	64.3
North Carolina	266	31.7
North Dakota	386	46.0
Ohio	321	38.3
Oklahoma	471	56.2
Oregon	412	49.1
Pennsylvania	384	45.8
Rhode Island	517	61.7
South Carolina	403	48.1

STATES	Current Medicaid Eligibility (AFDC Family of Three)*	Current Medicaid Eligibility as a Percent of Poverty **
South Dakota	366	43.7
Tennessee	365	43.5
Texas	184	21.9
Utah	502	59.9
Vermont	629	75.0
Virginia	291	34.7
Washington	492	58.7
West Virginia	249	29.7
Wisconsin	517	61.7
Wyoming	360	42.9

* These figures are current as of July 1989. Several States use two or more eligibility levels to reflect regional differences, seasonal differences, or differences in whether applicants have earned or unearned income. The eligibility figures presented in this table are considered the most representative for these States.

** The January 1989 Federal poverty guideline for a family of three was $10,060 per year.

Source: Information obtained from State Medicaid agency staff by the National Governors' Association in July 1989.

Table 6

Medicaid Coverage of Financially Eligible Adolescents

STATES	Financially Eligible Children Covered* Up to 18	Up to 19 or 20	Up to 21
Alabama	--	--	--
Alaska	--	--	X
Arkansas	--	--	--
California	--	--	X
Colorado	--	--	--
Connecticut	--	--	X
Delaware	--	--	--
District of Columbia	--	--	X
Florida	--	--	X
Georgia	X	--	--
Hawaii	X	--	--
Idaho	--	--	--
Illinois	X	--	--
Indiana	--	--	--
Iowa	--	--	X
Kansas	X	--	--
Kentucky	X	--	--
Louisiana	--	--	--
Maine	--	--	X
Maryland	--	--	X
Massachusetts	--	--	X
Michigan	--	--	X
Minnesota	--	--	X
Mississippi	X	--	--
Missouri	--	--	X
Montana	--	--	--
Nebraska	--	--	X
Nevada	--	--	--
New Hampshire	--	--	--
New Jersey	--	--	X
New Mexico	--	--	--
New York	--	--	X
North Carolina	--	--	X
North Dakota	--	--	X
Ohio	--	--	X
Oklahoma	--	--	X
Oregon	--	--	--
Pennsylvania	--	--	X
Rhode Island	--	--	--
South Carolina	X	--	--
South Dakota	--	--	--
Tennessee	--	--	X

Table 6 - continued

STATES	Financially Eligible Children Covered* Up to 18	Up to 19	Up to 21
Texas	--	X	--
Utah	X	--	--
Vermont	--	--	X
Virginia	--	--	X
Washington	--	--	--
West Virginia	--	--	--
Wisconsin	X	--	--
Wyoming	--	--	--
TOTAL	9	1	23

* Children who would receive AFDC, but do not qualify because of family composition.

SOURCE: Fox Health Policy Consultants, Inc. and McManus Health Policy, Inc. State Medicaid Survey, 1989.

Table 7

Medicaid's Mandatory and Optional Benefits

Mandatory Benefits

* Inpatient hospital services
* Outpatient hospital services
* Physicians' services
Rural health clinic services
Federally qualified health center services
Laboratory and X-ray services
Skilled nursing facility (SNF) services for recipients 21 and older
* Early and periodic screening, diagnosis, and treatment services (EPSDT) for recipients under 21
Home health services for recipients entitled to SNF care
Nurse midwife services (to the extent permitted by state law or regulation)

Optional Benefits

Podiatrists' services
Optometrists' services
Chiropractors' services
* Other licensed practitioners' services
Private duty nursing
* Clinic services
Dental services
Physical therapy
Occupational therapy
Speech, hearing, and language disorder therapy
Prescription drugs
Dentures
Prosthetic devices
Eyeglasses
Diagnostic services
Screening services
Preventive services
* Rehabilitative services
Intermediate care facility (ICF) services
ICF for mentally retarded (ICF-MR)
Inpatient hospital, SNF, and ICF services for recipients 65 or older in a mental institution
* Inpatient psychiatric services for recipients under age 21
Christian science nurses
Christian science sanatoria
SNF services for recipients under 21
Emergency hospital services
Personal care services
Transportation services
* Case management services
Hospice services

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* Primary care, mental health and substance abuse benefits examined in this report.

Table 8

EPSDT Periodicity Schedules in State Medicaid Programs, Compared With the AAP's Recommended Periodicity Schedule

	Scheduled Screenings Ages 10 - 21	Scheduled Screenings Ages 0 - 21
American Academy of Pediatrics Recommended Periodicity Schedule	6	20
Alabama	6	20
Alas'	4	15
Arkansas	3	9
California	3	16
Colorado	4	18
Connecticut	4	18
Delaware	6	20
District of Columbia	3	14
Florida	6	20
Georgia	6	20
Hawaii	6	20
Idaho	1	4
Illinois	6	18
Indiana	6	19
Iowa	3	13
Kansas	4	15
Kentucky	4	18
Louisiana	4	12
Maine	6	20
Maryland	11	27
Massachusetts	6	25
Michigan	6	13
Minnesota	As many as medically necessary	As many as medically necessary
Mississippi	3	14
Missouri	4	18
Montana	3	12
Nebraska	5	14
Nevada	3	12
New Hampshire	3	15
New Jersey	3	13
New Mexico	3	17
New York	6	20
North Carolina	4	16
North Dakota	11	20
Ohio	11	30
Oklahoma	2	5
Oregon	6	20
Pennsylvania	6	20
Rhode Island	6	20
South Carolina	3	15
South Dakota	3	15
Tennessee	3	18

Table 8 - continued

American Academy of Pediatrics Recommended Periodicity Schedule	Scheduled Screenings Ages 10 - 21 6	Scheduled Screenings Ages 0 - 21 20
Texas	2	11
Utah	3	12
Vermont	6	20
Virginia	3	14
Washington	10	25
West Virginia	7	22
Wisconsin	6	20
Wyoming	3	12
Total No. of States With Periodicity Schedule Equal to or Greater Than The AAP's	22	19

SOURCE: Fox Health Policy, Inc. and McManus Health Policy, Inc., State Medicaid Survey, 1989.

Table 9

Coverage and Restrictions on Physicians' Services

STATES	Office Visit Limits	Setting Restrictions	Office Staff Covered Under Physician Supervision(1)	Other Practitioners Covered Under Physician Supervision(2)
Alabama	12 visits/year	—	X	—
Alaska	—	—	X	X
Arkansas	12 visits/year(3)	School, day care	X	—
California	—	—	X	X(6)
Colorado	—	—	X	X
Connecticut	—	—	X	—
Delaware	—	—	X	X(6)
District of Columbia	—	School, day care, and other	X	—
Florida	—	School, day care, and other	X	—
Georgia	—	—	X	—
Hawaii	—	—	X	—
Idaho	—	—	X	X
Illinois	—	—	X	X
Indiana	—	—	X	—
Iowa	—	—	X	—
Kansas	12 visits/year	—	X	X
Kentucky	—	—	X	X
Louisiana	12 visits/year	—	X	X(6)
Maine	—	—	X	X(6)
Maryland	—(4)	—	X	X(6)
Massachusetts	—(4)	—	—	—
Michigan	—	—	X	X(6)
Minnesota	—	—	X	X
Mississippi	12 visits/year	—	X	X(6)
Missouri	—	—	X	X
Montana	—	—	X	—
Nebraska	—	—	X	X(6)
Nevada	—	—	—	X(6)
New Hampshire	18 visits/year	—	X	X
New Jersey	—	—	X	—
New Mexico	—	—	X	X
New York	—	—	X	X(6)
North Carolina	24 visits/year(5)	—	—	X

Table 9 - continued

STATES	Office Visit Limits	Setting Restrictions	Office Staff Covered Under Physician Supervision(1)	Other Practitioners Covered Under Physician Supervision(2)
North Dakota	—	—	X	X(6)
Ohio	10 visits/month	—	X	X
Oklahoma	4 visits/month	—	X	—
Oregon	—	—	X	—
Pennsylvania	—	—	—	X(6)
Rhode Island	—	—	X	—
South Carolina	18 visits/year	—	—	X
South Dakota	—	—	X	X
Tennessee	24 visits/year	—	X	X(6)
Texas	—	—	X	X
Utah	—(4)	School	X	X(6)
Vermont	—	—	X	—
Virginia	—	—	X	X(6)
Washington	—(4)	—	X	X(6)
West Virginia	—(4)	—	X	—
Wisconsin	—	School, day care	X	X
Wyoming	—	—	X	X
TOTAL	11	5	45	33

1 = Nurses and other office staff.
2 = Nurse practitioners, physician's assistants, speech, occupational, and physical therapists.
3 = For all physician and hospital OP services.
4 = One visit per day.
5 = For all physician, hospital OP, and clinic services.
6 = Only some licensed practitioners covered under physician supervision.

SOURCE: Fox Health Policy Consultants, Inc. and McManus Health Policy Inc., State Medicaid Survey, 1989.

Table 10

Coverage and Restrictions on Hospital Outpatient Services

STATES	Limits on Basic Coverage	Prior Authorization Required
Alabama	3 visits/year	--
Alaska	--	X(4)
Arkansas	12 visits/year(1)	--
California	--	X(4)
Colorado	--	X(4)
Connecticut	--	X(4)
Delaware	--	--
District of Columbia	2 visits/day	--
Florida	$1000 /year	--
Georgia	--	X(4)
Hawaii	--	X(4)
Idaho	--	--
Illinois	--	--
Indiana	--	X(4)
Iowa	--	X(4)
Kansas	--	--
Kentucky	--	--
Louisiana	--	--
Maine	--	--
Maryland	--	--
Massachusetts	--	X(4)
Michigan	--	X(4)
Minnesota	--	X(4)
Mississippi	6 visits/year	X(4)
Missouri	--	X(4)
Montana	--	--
Nebraska	--	X(4)
Nevada	--	X(4)
New Hampshire	12 visits/year	--
New Jersey	--	X(4)
New Mexico	--	X(4)
New York	--	X(4)
North Carolina	24 visits/year(2)	X(4)
North Dakota	--	--
Ohio	--	X(4)
Oklahoma	--(3)	--
Oregon	--	X(4)
Pennsylvania	--	X(4)
Rhode Island	--	X(4)
South Carolina	--	--
South Dakota	--	--
Tennessee	30 visits/year	--

Table 10 - continued

STATES	Limits on Basic Coverage	Prior Authorization Required
Texas	--	X(4)
Utah	--	X(5)
Vermont	--	--
Virginia	--	--
Washington	--	X(4)
West Virginia	--	X(4)
Wisconsin	--	--
Wyoming	--	--
TOTAL	8	27

1 = All OP hospital and physician services.
2 = All OP hospital, clinic, and physician services.
3 = One visit per day
4 = Prior authorization required for some services.
5 = Prior authorization required to exceed a limit.

SOURCE: Fox Health Policy Consultants, Inc. and McManus Health Policy, Inc. State Medicaid Survey, 1989.

Table 11

State Coverage of Targeted Case Management

States	High Risk Pregnant Women	Chronically Mentally Ill or Mentally Retarded	Others With Mental Diagnosis	Severely Emotionally Disturbed	Substance Abusers	Others*
Alabama	—	X	X	X	—	—
Georgia	—	X	—	X	X	—
Louisiana	—	—	—	—	—	X
Maine	—	X	—	X	—	—
Maryland	X	—	—	—	—	X
Massachusetts	—	X	—	—	—	—
Michigan	—	X	—	X	—	—
Minnesota	—	X	—	—	—	—
Mississippi	X	—	—	—	—	—
Missouri	X	—	—	—	—	—
Nebraska	X	X	X	X	X	X
New York	X	—	—	—	—	X
North Carolina	—	—	—	X	X	—
Ohio	X	—	—	—	—	—
Oklahoma	—	X	—	X	—	—
Pennsylvania	—	—	—	—	—	X
Rhode Island	—	X	—	—	—	—
South Carolina	—	X	X	X	—	—
Utah	X	—	—	—	—	X
Virginia	X	—	—	—	—	—
Washington	X	—	—	—	—	X
West Virginia	—	X	—	X	X	—
Wisconsin	—	X	—	X	X	X
TOTAL	9	12	3	10	5	8

* Includes children with AIDS or HIV infection, ventilator assisted children, and children in foster care, among others.

SOURCE: Fox Health Policy Consultants, Inc. and McManus Health Policy, Inc., State Medicaid Survey, 1989.